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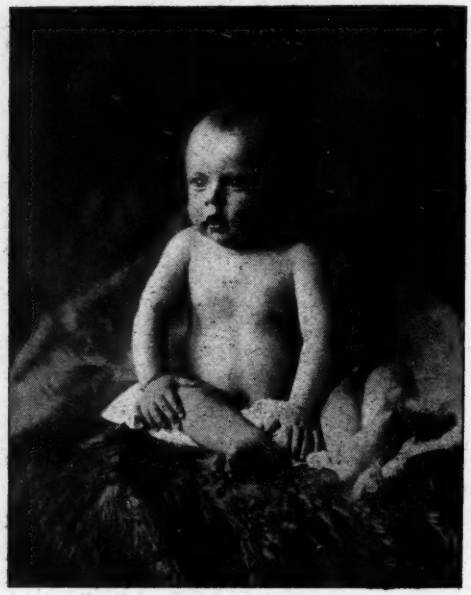

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# THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. I.—4TH YEAR. SYDNEY: SATURDAY, MARCH 24, 1917. No. 12.

## WAR SURGERY AT THE FRONT.

By **C. MacLaurin, M.B., M.S., Edin.,**
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### I.

### Cranial Surgery.

I should like to preface this short series of articles with the remark that the institution of the casualty clearing station has entirely revolutionized the prognosis and treatments of injuries received in war. A casualty clearing station is, as is now becoming pretty well known, a mobile hospital, placed as far forward as possible, staffed with seven doctors and seven nurses, and equipped for the performance of any operation; it is supposed to have a capacity so elastic as to admit three or four times as many patients as it is nominally intended to hold. Some of these hospitals are housed in *châteaux*, asylums, school-houses, etc., but a great number are in tents on open fields, far removed from any town. Ours was of the latter type, and while it is to be admitted that such hospitals score in the matter of cleanliness and freedom from insect pests, yet it may perhaps be considered that these advantages are almost outweighed by the loneliness and isolation of the life, the absence of amusement or recreation, and the discomforts which are inseparable from life under canvas, and are apt to be felt somewhat severely by senior men who have lived a life of ease and comparative luxury since the years of youth and hardiness have passed them by.

A casualty clearing station must be equipped with a good operating theatre and a complete outfit of instruments; it is desirable to have electric light; we introduced an X-ray apparatus to an astonished army, which was rather horrified at the idea. The theory originally was that if a casualty clearing station possessed such a thing the staff would be tempted to keep patients there rather than send them on immediately to the base. However, ours proved so invaluable, and was undoubtedly the means of saving so many lives, that I believe the authorities were converted, and it was said that an X-ray apparatus and even a delineator were to become part of the regular equipment of every casualty clearing station.

Although the system of casualty clearing stations has worked very well in the present system of trench warfare, so well indeed that it has even been proposed to advance them still further and install them in large dug-outs among the trenches, it remains to be seen whether the same smoothness and quickness of treatment will be possible when the army begins to advance. Should a quick retreat become necessary, I doubt whether the casualty clearing station will be able to do any work at all; it would seem more likely that the whole unit would fall into the hands of the enemy, or if it should manage to escape, it would be able to do very little work until the army made a definite stand. The fact seems to me to be that the majority of the clearing stations are not really mobile in the sense that a field ambulance is mobile, and I much doubt whether they would be able to keep pace with an army either in advance or retreat and at the same time do any extensive operating work.

When I went to the front there was much difference of opinion as to whether brain cases should be operated on at the casualty clearing station, or be sent on to the base. The tendency at that time was to keep these patients till fit to travel, and then send them down to the base hospital, to be operated on there. Naturally, the men at the bases wanted these cases for themselves, and the casualty clearing station men were not particularly keen on them, because each case took a long time to do, and took a deal of trouble to look after, as the patients were often restless and delirious, getting out of bed and upsetting the wards generally, while there were never any dramatic cases in which life had been undoubtedly saved, as were so often seen in abdominal operations. Improvement in head cases was generally slow, and the process of cure was not a pleasant one for anybody. The general feeling, therefore, was that these troublesome patients should be sent on to a hospital where there was a larger staff. However, I went on the principle of operating on all who were likely to survive, and I think our results had a good deal to do with encouraging other men to operate also, instead of sending these very sick men on a journey which was, in too many cases, to end only in the grave.

There is a vast wealth of operative material in every army at the front. Men often fall from guns or ammunition waggons and fracture thereby their skulls, usually the base; dug-outs cave in upon them; splinters of shells strike them; machine-gun bullets perforate the head; and altogether skull injuries are among the commonest observed. I kept no record of the numbers upon which I operated, but it was a poor week when we did not do five or six, and my "serious ward" usually contained half a dozen or so heads wrapped up in bandages, the owners of which spent their time either in trying to get out of bed or in insulting their neighbours.

Fractures of the base were extremely common, and were mostly caused by accident. In several cases the post-mortem examination showed rupture of the pons. We came to take a less serious view of the ordinary fracture of the base than is usual in civil life. The patients were all young, picked men of magnificent physique, and we found that a rapid, formal sub-temporal decompression was followed in most cases by gradual improvement and subsequent cure.

Fractures of the vault were generally the result of shell fragments, and it must be insisted on that quite

serious fractures might be caused and yet give little or no indication of their presence. The exploration of apparently trifling scalp wounds often showed that the bone beneath was extensively fissured, and that septic changes in the bone and the subjacent membranes were almost certain to follow. We, therefore, made it a rule to explore every case of scalp wound, however small, under a local anæsthetic, and were seldom disappointed of larger quarry. I may here, in passing, pay a tribute to the shrapnel helmet or "tin hat." It is no longer open to question that this contrivance has saved vast numbers of lives. It resists most blows from shell fragments, provided they are not from too short a distance, and are not direct in their stroke. It cannot resist a machine-gun bullet, except at very long range, but it has the power of turning aside many of those which hit the helmet on its curve, and in any case, even should perforation occur, the subsequent injury is undoubtedly less severe than when no helmet is worn. Most of the fatal cases we had were in men who had been struck when far behind the lines, and had gone out without their "tin hats." Thus one night there was an aerial combat between two aeroplanes immediately above our hospital, which some of us watched with much interest, the brilliant star grenades and the flash of machine-guns high in the air, with the crackle of fire, making up an extraordinary picture. One of the bullets struck a soldier no less than two miles away on the left parieto-occipital region of the vault; I operated and failed to find the bullet at the time, but after death we found that it had perforated the skull and brain, and was lying in the right petrous temporal bone, after having caused destruction of the brain. In this case it is doubtful whether a "tin hat" would have stopped the bullet, though it might have turned it off, because it was not only falling with its own inherent velocity, but also the velocity acquired from a point some two and a half miles above the earth's surface. However, whenever there was any danger from anti-aircraft projectiles, which was pretty often, we always wore our "tin hats" with touching confidence.

Several cases of complete perforation of the skull from front to back came under my care; they all did well. Perforation from side to side is less promising; when death is not instantaneous these patients seldom live more than a few hours.

In some cases a great portion of the side of the skull was blown away; although they survived long enough to be moved to the base hospital, I think they all subsequently died from cerebral abscess. This, indeed, must be looked upon as a most serious and insidious complication of skull injuries, which usually gives no sign of its presence for several weeks, and is only too often overlooked. For this reason every case of severe brain injury should be seen by a competent neurologist at frequent intervals after his arrival at the base or home hospital.

The most common injury, however, was fissured fracture, with usually a comparatively small perforation and the projectile lying inside the skull, either near the surface or deep down and out of reach, even when localized by the X-ray. Many small fragments of bone were usually driven into the brain with the projectile, and tended to increase the sepsis. It cannot be too strongly emphasized that these very serious injuries were often accompanied by trifling injuries to the scalp, and often the patients showed no sign whatever of intra-cranial trouble at first; it is only after the lapse of two or three days, when meningitis begins to set in, that one might suspect penetration of the skull. Our rule, therefore, of exploring every scalp-wound, however apparently trifling it might seem, proved to be of the greatest possible value, and since the same rule has been generally adopted at all the casualty clearing stations, or the base hospitals, the mortality from brain injuries has been much reduced.

We were soon able to formulate a settled plan of procedure for all skull injuries. We operated, as a rule, under general anæsthesia. We abandoned local anæsthesia for all except very trifling wounds, or for those in which the patient was sunk in profound coma. The whole scalp was shaved; this was often exceedingly troublesome, on account of the hard water in our part of France, which not only blunted the razors but also refused to form a lather. The scalp-wound was excised after cleansing the scalp with iodine. A large semi-circular flap was then turned up, with the excised wound in the centre, hæmorrhage being arrested by forceps applied to the bleeding vessels as they were cut. These forceps included the whole thickness of the scalp, no attempt being made to pick up the vessel without outside tissues. The flap in the soft parts was then turned up rapidly and held out of the way. A ring of bone was then cut out, with the hole of entrance in the middle, and the dura was exposed. The edge of the perforation was cut away and the dura opened to the whole size of the aperture in the bone by a crucial incision. Generally I prefer to turn down a flap of dura, but in these cases the crucial incision seemed usually preferable. Blood and any foreign matter was then carefully wiped away, and a strip of gauze packed around the opening, as one packs off the abdominal viscera with gauze in a section; by this means the field of operation could be kept free from blood. The next step was to make a superficial search for the projectile, which had generally been localized with the X-ray; but the finger was never thrust more than about an inch into the brain substance. In a few cases I inserted a probe along what appeared to be the track of the projectile, but I am bound to say I never found anything that way, nor do I believe that it is possible to follow up a projectile with a probe, as, owing to the softness of brain matter, the probe will go in any other direction quite as easily as the right one. I therefore abandoned this method after two or three unsuccessful tries, as it seemed to me to do more harm than good, and we found that it never seemed to do any great harm to leave fragments of metal within the brain, as long as the neighbourhood of the meninges was cleansed, free decompression effected, and hæmorrhage stopped.

Oozing from the brain surface is easily controlled by gentle pressure unless a large vein in the *arachno-pia mater* has been torn; in these cases hæmorrhage stops at once if a small piece of fresh

muscle is cut from the neighbouring flap and pressed gently on to the bleeding spot. Having arrested hæmorrhage, one makes sure that the opening in the skull is enough for decompression; if not certain on this point, we used to remove considerable areas of bone. After removal of the gauze packing there was often a persistent ooze from the arachno-pial veins; on no account may the patient leave the table until this has been entirely arrested, even though it may mean another half-hour. There are few things more annoying in surgery than the persistent way this venous blood keeps oozing up from the depths of the wound, in spite of all one's patience and efforts; but if the actual spot can be found it can always be stopped by the application of muscle. If it is impossible to find where the ooze is coming from, then the bone must be cut away till perfectly free access is obtained. Similar remarks apply to arterial bleeding from the vessels of the *dura mater*; in these cases it is generally easy to apply a small ligature as soon as the actual point can be found.

The whole wound is then gently washed with eusol; the *dura mater* is left open and the scalp flap firmly sutured in place; the open wound which marks the spot whence the wound of entrance has been excised is stitched up without drainage as closely as possible, and the whole painted with iodine. The dressing is fixed in place with a large triangular bandage. We soon gave up all special head bandages at the front. Either they exercise no pressure or else they take too long to apply. A triangle can be applied so as to exercise fair pressure, and can be put on in a moment without special skill.

These cases did well almost without exception. Similar treatment is also used for a wound of exit, if one be present. The after-treatment is simply to keep the patient quiet with morphine until he begins to recover consciousness, and to regain control over himself. It was not allowable to move these patients for ten days after the operation, as it had been found that when they were moved too soon sudden death occasionally occurred in the train.

When there is no sign of perforation of the dura the treatment, after opening the skull, depends on whether there is any intra-cranial pressure. If the dura is seen to be bulging, or has obviously blood just beneath it, the proper thing to do is to open it freely, let out the blood, and arrest hæmorrhage; then proceed as before.

Considerable cerebral œdema often followed these cases, as shown by the formation of a decompression-tumour and sometimes paralysis; but this cleared up in a few days. Should all hæmorrhage not have been most carefully arrested a hæmatoma would form beneath the scalp, which would suppurate and cause a great deal of trouble.

A word should be said about the indications for operation. Never operate on a head case which shows signs of shock, as evidenced by rapid pulse and pallor. These cases are liable to sudden death on the table. It is wiser to wait even as long as three days before attempting interference; but in any case no operation should be done until the patient shows signs of rallying, unless the temperature begins to rise and coma deepens, in which case one has to choose the less of two evils and open the skull at all costs.

As regards the technique, I always used the Doyen's burr and Dahlgren's forceps for opening the skull. This method is safer than electric instruments, and quite as rapid. It is impossible, with ordinary care, to do any harm to the intra-cranial contents with these instruments.

## ON THE MILK-CURDLING PROPERTIES OF PANCREATIC JUICE.

By Henry George Chapman, M.D. (Melb.), and Arthur Henry Moseley, M.B., Ch.M. (Syd.)

(*Continued from page 226*).

### Changes Occurring in the Milk During Contact.

### Development of Acid.

When pancreatic juice, activated pancreatic juice or enterokinase is added to milk, certain changes are brought about. The acidity of the mixture increases. The caseinogen is so altered that a flocculent precipitate is formed upon heating the mixture to the boiling point. The change in the acidity has been estimated by titration with N/10 soda. With pancreatic (cannula) juice the increased acidity is usually most marked with juice collected the same day (compare Tables 12 and 14 *infra*). It is probably due to the presence of lipase in the pancreatic secretion. Table 12 records the results of one series of observations. Five cubic centimetres of milk were diluted with 10 c.cm. water and titrated with phenolphthalein as indicator. As it was thought that some of the liberated fatty acids might not react immediately in an aqueous fluid, a second series of titrations were performed, in which 10 c.cm. ether was used in place of the water. Twenty-five cubic centimetres of the milk diluted with 100 c.cm. water required 3.15 c.cm. N/10 soda to react just pink tc phenol-phthalein. Five cubic centimetres of milk were mixed with 0.1 c.cm. pancreatic juice and stood in the water-bath at 38° C.

**Table 12.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.6 c.cm. | — |
| 2 | — | — | 1.4 c.cm. |
| 3 | 1 hour | 2.1 c.cm. | — |
| 4 | 1 hour | — | 2.8 c.cm. |
| 5 | 2 hours | 3.4 c.cm. | — |
| 6 | 2 hours | — | 4.1 c.cm. |
| 7 | 3½ hours | 3.35 c.cm. | — |
| 8 | 3½ hours | — | 4.15 c.cm. |
| 9 | 4½ hours | 3.1 c.cm. | — |
| 10 | 4½ hours | — | 3.8 c.cm. |

A control series of tubes containing the same milk was stood in the water-bath without pancreatic juice and titrated at the same times. The acidity remained unaltered. The amount of acid liberated in the milk by the agency of the fresh pancreatic juice, therefore amounted to 50 c.cm. decinormal acid in 100 c.cm. milk.

The effect of activated juice in liberating acid in the milk is shown in Table 13. The activated juice

was prepared by mixing 10 c.cm. of pancreatic (cannula) juice with 0.1 c.cm. enterokinase. The mix-

**Table 13.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.7 c.cm. | — |
| 2 | — | — | 1.45 c.cm. |
| 3 | 1 hour | 1.0 c.cm. | — |
| 4 | 1 hour | — | 1.95 c.cm. |
| 5 | 2 hours | 1.25 c.cm. | — |
| 6 | 2 hours | — | 2.3 c.cm. |
| 7 | 3 hours | 1.6 c.cm. | — |
| 8 | 3 hours | — | 2.65 c.cm. |
| 9 | 4 hours | 2.7 c.cm. | — |
| 10 | 4 hours | — | 3.45 c.cm. |

ture was incubated for eighteen hours at 38° C.. The series recorded was carried out with the same pancreatic juice as was employed for the series recorded in Table 12. Two sets of control experiments were made at the same time. In one set the milk was mixed with the pancreatic (cannula) juice, which had been kept for twenty-four hours since it had been used for the experiments, which are recorded in Table 12. In the other set the milk was incubated alone. The proportions of milk and juice were as in the previous experiments. The control experiments showed that the milk did not become more acid upon incubation for five hours, and that the capacity of the inactivated pancreatic juice to liberate acid had not lessened to any marked extent. The inactivated pancreatic juice was kept in the incubator for eighteen hours, so that it should be as far as possible under the same conditions as the activated juice. The results of the titrations of this control series are given in Table 14. A comparison

**Table 14.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.7 c.cm. | — |
| 2 | — | — | 1.45 c.cm. |
| 3 | 1 hour | 2.1 c.cm. | — |
| 4 | 1 hour | — | 2.95 c.cm. |
| 5 | 2 hours | 2.6 c.cm. | — |
| 6 | 2 hours | — | 3.1 c.cm. |
| 7 | 3 hours | 2.65 c.cm. | — |
| 8 | 3 hours | — | 3.4 c.cm. |
| 9 | 4 hours | 3.1 c.cm. | — |
| 10 | 4 hours | — | 3.6 c.cm. |

of the results of Tables 13 and 14 shows that the acidity increases more slowly with the activated pancreatic juice than with the inactivated juice, but that the total amount of acid liberated, is approximately the same.

The preparations of enterokinase used in this investigation, caused an increase in the acidity of milk. This liberation of acid was produced with the enterokinase made after the directions of Vernon[8] as well as with that prepared according to the methods of Bayliss and Starling.[7] No attempt was made in this research to determine the nature of the substances, contained in the solutions of enterokinase, which brought about the decomposition of the fats of the milk. The rate of formation of acid in mixtures of enterokinase and milk was estimated as in the previous experiments. Five cubic centimetres of milk were treated with 0.1 c.cm. enterokinase (Bayliss and Starling), and incubated at 38° C.. The formation of acid is recorded in Table 15.

**Table 15.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.6 c.cm. | — |
| 2 | — | — | 1.4 c.cm. |
| 3 | 1 hour | 0.65 c.cm. | — |
| 4 | 1 hour | — | 1.45 c.cm. |
| 5 | 2 hours | 0.8 c.cm. | — |
| 6 | 2 hours | — | 1.6 c.cm. |
| 7 | 4 hours | 2.0 c.cm. | — |
| 8 | 4 hours | — | 2.7 c.cm. |
| 9 | 5 hours | 2.75 c.cm. | — |
| 10 | 5 hours | — | 3.0 c.cm. |

The increase in acidity at first is very slow, but, after some hours, the amount of acid liberated is considerable. The rate of formation of acid with solutions containing enterokinase, as also with activated juice, suggests that the titration figures in these cases are the result of changes other than those due to the liberation of fatty acids by lipolytic ferments. As 0.03 c.cm. enterokinase was used in many experiments, the formation of acid by this amount of enterokinase solution in 5 c.c. milk was estimated. A typical set of titrations is recorded in Table 16.

**Table 16.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.6 c.cm. | — |
| 2 | — | — | 1.4 c.cm. |
| 3 | 1 hour | 0.65 c.cm. | — |
| 4 | 1 hour | — | 1.45 c.cm. |
| 5 | 2 hours | 0.75 c.cm. | — |
| 6 | 2 hours | — | 1.5 c.cm. |
| 7 | 3 hours | 1.3 c.cm. | — |
| 8 | 4 hours | — | 2.3 c.cm. |
| 9 | 5 hours | 2.25 c.cm. | — |
| 10 | 5 hours | — | 2.75 c.cm. |

This series was performed with the same enterokinase as was employed in the set of experiments recorded in Table 15. The milk does not show any appreciable accumulation of acid until two hours has elapsed.

Experiments were also made to measure the formation of acid when inactive pancreatic juice and enterokinase were added to milk. The experiments fall into two groups. In the first group the enterokinase was added to a mixture of milk and inactive pancreatic juice which had stood in the water-bath for some minutes or hours. In the second group the reacting substances were mixed at the same time. Table 17 gives the results of an experiment in which the milk and inactive juice had stood in contact for 100 minutes before the addition of 0.03 c.cm. enterokinase to each tube containing 5 c.cm. milk and 0.1 c.cm. inactivated juice.

**Table 17.**

| Tube. | Time of Contact. | Aqueous Titration. | Ethereal Titration. |
|---|---|---|---|
| 1 | — | 0.8 c.cm. | — |
| 2 | — | — | 1.6 c.cm. |
| 3 | 90 min. | 4.4 c.cm. | — |
| 4 | 90 min. | — | 5.2 c.cm. |
| 5 | 220 min. | 5.6 c.cm. | — |
| 6 | 220 min. | — | 6.4 c.cm. |

It will be observed from Table 17 that the acidity rose rapidly after the addition of enterokinase. Another experiment was made in this series, in which 1 c.cm. enterokinase was added to the mixture of milk and inactivated juice after 100 minutes' contact. In two hours the acidity had risen to 7.1 c.cm. for the aqueous titration, and to 7.9 c.cm. for the ethereal titration. When the enterokinase and

inactive juice were mixed with the milk at the same time, the acidity rose rapidly. In the course of eighteen minutes the acidity of 5 c.cm. milk had risen in aqueous titration to 2.1 c.cm., and in ethereal titration to 2.85 c.cm. Fifteen minutes later, the figures for the acidity were 3.7 c.cm. and 4.5 c.cm. respectively. No more extended series of this kind were carried out.

In the experiments recorded in the first part of this paper on the clotting of the milk the amounts of pancreatic juice and enterokinase, and the periods of contact were those for which the acidity was estimated. One experiment was made in which 100 c.cm. milk was mixed with 9 c.cm. inactivated juice and incubated at 38° C.. Acid, equivalent to 30 c.cm. decinormal acid, was formed in 26 minutes. In one hour the caseinogen was precipitated by the acid produced in the milk. The acid liberated was equivalent to 70 c.cm. decinormal acid. When it is remembered that much less quantities of acids, soluble in water, are sufficient to precipitate the caseinogen from milk, it will be obvious that the acids titrated are only in part in solution in the milk. The addition of 16 c.cm. of decinormal acetic acid is usually sufficient to precipitate the caseinogen from 100 c.cm. milk. It may be assumed that a similar amount of acid is in solution in the mixture of milk and pancreatic juice when the caseinogen is thrown from suspension.

### The Metacasein Reaction.

Roberts pointed out that mixtures of milk and pancreatic extracts undergo a change whereby a flocculent precipitate is produced upon boiling the mixture. He considered that the caseinogen was converted into metacasein, which was coagulated by heat. Mixtures of milk with inactivated pancreatic juice, with activated pancreatic juice and with enterokinase, developed the "metacasein reaction" upon standing for a sufficient time at the temperature of the body. As it was thought that the development of this reaction might be connected with coagulation of the milk, some experiments were made to study the conditions of the reaction. The time required for the occurrence of the change was studied by mixing 100 c.cm. milk with 2 c.cm. of pancreatic juice or enterokinase. Portions measuring 5 c.cm. were removed and boiled. The separation of a flocculent precipitate constituted the presence of the reaction.

Three separate samples of inactivated pancreatic juice were used for these experiments, though the presence of the reaction, in experiments with other samples of juice, was noted. With sample A the reaction appeared after the juice and milk had been in contact for 175 minutes and was still present after 240 minutes. With sample B the reaction appeared in 150 minutes. With sample C the reaction appeared in 268 minutes, and was present two hours later. The acidity with sample A at the time the reaction appeared, was 3.4 c.cm. N/10 acid with 5 c.cm. milk, with sample B the acidity of 5 c.cm. milk was 1.4 c.cm. N/10 acid, and, with sample C, 2.7 c.cm. N/10 acid. The acidities in these measurements represent aqueous titrations. The ethereal titrations yielded figures about 0.8 c.cm. higher than those of the aqueous titrations. The pancreatic (cannula) juices A and B were activated. The effect of these activated juices in producing the "metacasein reaction" was observed. With activated pancreatic juice A, the reaction appeared in 99 min., and with activated pancreatic juice B, in 60 min. The reaction was present after 150 minutes with activated pancreatic juice B. The acidity of 5 c.cm. milk in contact with activated pancreatic juice A for 99 minutes was not observed, but, with sample B, the acidity after 60 minutes was 1.9 c.cm. N/10 acid for 5 c.cm. milk. With enterokinase the "metacasein reaction" appeared with one sample, of which 2 c.cm. were added to 100 c.cm. milk, in 268 minutes. With a second sample of enterokinase, the reaction appeared in 290 minutes. The acidity for 5 c.cm. milk with the former sample was 2.8 c.cm. N/10 acid, and with the latter 1.7 c.cm. N/10 acid. These figures were the result of aqueous titration. It was noted that it was unnecessary to boil the milk to obtain this reaction. When any mixture was placed in the water-bath at 50 C., the reaction developed within one minute if it could be obtained by boiling the milk.

A study of these results shows that the "metacasein reaction" does not depend on the mere presence of acid. Some change occurs in the caseinogen which is brought about most rapidly by activated pancreatic juice and least rapidly by enterokinase. The development of the "metacasein reaction" is also not a factor in producing coagulation of the milk. While most samples of milk which coagulated, showed the metacasein reaction, some samples of milk coagulated in which the reaction had not appeared. Again, many samples of milk showed the "metacasein reaction" but did not coagulate. The presence of this reaction with inactive pancreatic juice shows that this secretion has some action upon protein before the process of activation gives rise to the formation of trypsin.

The caseinogen which has become converted to metacasein can undergo coagulation to form a typical clot. One hundred cubic centimetres of milk were mixed with 9 c.cm. of fresh inactive pancreatic juice. After 49 minutes the milk yielded a flocculent precipitate due to the liberation of acid (*supra vide*). Thirty minutes later, 20 c.cm. milk were filtered. The residue was washed and dissolved in diluted sodium carbonate solution. To the solution, 5 drops of 10% $CaCl_2$ and 1.5 c.cm. gastric rennin were added. A clot formed in four minutes in the water-bath at 38° C.. The clot shrank and separated whey like a junket.

### Effect of the Addition of Fresh Milk.

Many experiments were performed in which fresh milk was added to mixtures which had not clotted, but which had undergone proteolytic digestion[20]. Attempts have also been made to discover whether mixtures of milk and inactive pancreatic juice, which had been in contact for long periods, could cause the coagulation of fresh milk. These experiments invariably yielded negative results. On no occasion has a clot been formed when a mixture of milk and pancreatic juice, which had stood in the incubator for hours, was added to 5 c.cm. fresh milk

and the tube placed in the water-bath. Similarly, no clotting is produced when mixtures of milk and enterokinase, which had been in contact in the water-bath for hours, were added to fresh milk. The addition of mixtures of milk and activated pancreatic juice, which had been in contact for several hours, but which did not clot, to 5 c.cm. fresh milk, gave rise to rapid clotting. The clot usually appeared in one minute. If the mixture was heated to 100° C. for two minutes before the addition of the fresh milk, no clot was formed. Similarly, mixtures of milk, inactivated pancreatic juice and enterokinase which had been in contact for some hours but which had not clotted, gave rise to a clot on the addition of 5 c.cm. fresh milk. This coagulation was usually complete in two minutes. Occasionally coagulation was complete in 30 seconds. Even when a clot had been formed in mixtures of milk, inactivated juice and enterokinase which had dissolved as a result of proteolytic changes, the addition of 5 c.cm. fresh milk to the mixture led to coagulation of the contents of the test-tube. It was shown in the experiments recorded in Table 5 that the addition of activated pancreatic juice to mixtures of milk and inactivated pancreatic juice which had been in contact for some time, occasioned clotting of the milk. After 55 minutes' contact a clot was produced in 17 minutes on the addition of the activated juice. When the milk and pancreatic juice had been in contact in the water-bath less than 55 minutes, no clot was formed in the tube on the addition of the activated juice. When the mixture of milk and inactive juice stood for a longer period than 55 minutes, a clot was formed on the addition of the activated juice, and the period in which the clot was formed diminished to 77 seconds after 350 minutes' contact. A series of experiments were made some 200 minutes after the addition of the activated juice on a number of these tubes. Taking the tube to which the activated juice was added 20 minutes after the inactive juice had been added to the milk, we poured it into 5 c.cm. milk warmed to 38° C. Coagulation occurred in one minute. The tube in which the activated juice was added 25 minutes after the inactive juice was titrated with alkali. The acidity was equal to 5.8 c.cm. N/10 acid. Five cubic centimetres of decinormal soda were added to the tube which had received its addiment of activated juice after 30 minutes. Five cubic centimetres of milk were added to the tube. No coagulation occurred. The tube in which the activated juice was added to the mixture after 35 minutes was heated to the boiling point for two minutes. When cooled, the contents were added to 5 c.cm. fresh milk. No coagulation occurred. The tube to which the activated juice was added after 75 minutes, and in which a clot had formed, was quite fluid after 200 minutes' digestion. Its contents were added to 5 c.cm. fresh milk. A clot formed in one minute. These clots seemed similar to those formed without any addition of fresh milk. They separated slowly into a clear whey and shrunken coagulum. After an hour or more the clot digested. A set of experiments was made to determine the amount of the initial tube needed to clot the fresh milk. The results of one series are recorded in Table 18. The addition of one-tenth volume of the original tube holding 5 c.cm. was

**Table 18.**

| Tube. | Amount of Initial Tube added. | Result. |
|---|---|---|
| 1 | 0.1 c.cm. | no clot. |
| 2 | 0.5 c.cm. | clot in 13 min. |
| 3 | 1 c.cm. | clot in 14 min. |
| 4 | 2 c.cm. | clot in 13 min. |

sufficient to coagulate 5 c.cm. milk. Similar results were obtained with tubes containing milk, inactive pancreatic juice and enterokinase.

### Discussion.

Before dealing with the results obtained in this research it will be as well to draw attention to the view promulgated by Pawlow[21] that pepsin and rennin are identical. The evidence in favour of this view was published by Pawlow and Paratschuk.[22] Nencki and Sieber had already suggested that the proteolytic and milk-curdling powers of gastric juice were due to the same substance acting by means of different radicles. Mellanby[23] came to the conclusion that the clotting of milk by gastric and by pancreatic ferments were essentially different processes. Mellanby was led to believe from his experimental data that it was necessary to add soluble lime salts to milk in order to produce coagulation.

Our results show that inactivated pancreatic juice does not lead to the coagulation of milk. We believe that we have conducted a sufficient variety of experiments to exclude the possibility of pancreatic juice containing the same milk-curdling ferment as gastric juice. Neither increased acidity nor greater concentration of calcium ions renders milk capable of clotting with inactivated juice. The conditions under which activated pancreatic juice has brought about coagulation do not differ from those under which inactivated juice failed to cause coagulation. We thus conclude that activation of the pancreatic juice is necessary to develope its milk-curdling properties. The inactivated juice does not, however, appear to be devoid of action upon caseinogen. The development of the "metacasein reaction" demonstrates that some change occurs in the protein. We recognize that this may be due to the development of the acid reaction. The acid may liberate some calcium from the calcium caseinogenate, which may then show a "metacasein reaction." On the other hand the difference in the effect of the addition of enterokinase at the same time or after the addition of inactive juice to milk supports the view that some action occurs on caseinogen. When milk and inactive juice have been in contact for 30 minutes, the addition of enterokinase produces clotting in 3 minutes. When added together the ferments induce coagulation in 13 minutes. We have no positive evidence for or against such an hypothesis. We have observed the coagulation of milk by inactive juice and enterokinase and by inactive and activated pancreatic juice, without any addiment of soluble calcium salts. The effect of the addition of enterokinase to mixtures of milk and inactive juice appears to depend upon some action upon the inactive juice, since heating the mixture prevents coagulation. The heat does not alter the caseinogen, as we have caused the milk in some of

these heated tubes to clot by suitable additions of ferments.

We have employed enterokinase to activate our samples of cannula pancreatic juice. We have not tested the effects of juice activated by hydrochloric acid as used by Glaessner,[24] by leucocytes as used by Delezenne,[25] and Chapman,[26] and by calcium salts as used by Mellanby. We have made a few attempts to activate pancreatic juice with blood, but with no useful results. We have not been able to collect any evidence to show that the milk-curdling ferment is different from the proteolytic ferment formed by the activation of pancreatic juice. Our experiments seem to show that the proteolytic changes produced by trypsin, rapidly alter the caseinogen, so that the formation of a gel becomes impossible. The active agents for bringing about coagulation of the caseinogen are present, so that clotting is produced when fresh milk is added.

Many experiments were made with the object of finding some relation between the acidity that developed in the milk, and its coagulability. We were at first led to believe that coagulation did not occur until the acidity had risen above a certain minimal value. Indeed, in the great majority of tubes in which coagulation occurred, the acidity had risen above 2 c.cm. N/10 acid in 5 c.cm. milk. Frequently coagulation did not occur until the acidity was higher. When, however, titrations were made of the contents of tubes in which calcium chloride was present, the acidity was found to be little raised.

The production of a solid clot or viscous fluid, observed by Halliburton and Brodie, seems to us to be different from the conversion of caseinogen into casein. We have noted that the contents of many of the tubes containing digested milk, become solid upon cooling to room temperature. The contents become fluid again on heating the tubes. On cooling once more, the contents solidify. The change thus appears to be readily reversible with alteration in temperature. It is thus different from the conversion of caseinogen into casein, which is, as far as we know, not reversible.

### Conclusion.

(1) Pancreatic (cannula) juice does not curdle milk.

(2) The addition of hydrochloric acid or of calcium chloride, or of both these substances to milk does not give rise to clotting on the addition of inactivated pancreatic juice.

(3) Activated pancreatic juice does not clot milk, unless a soluble lime salt has been added to the milk.

(4) The addition of inactivated pancreatic juice and enterokinase to milk gives rise to coagulation when the pancreatic juice is not more than five hours old, when the quantity of pancreatic juice is less than 0.35 c.cm. to each 5 c.cm. milk, and when the amount of enterokinase is less than 0.03 c.cm. in the same amount of milk.

(5) The subsequent addition of enterokinase, or activated milk, to mixtures of milk and inactive juice leads to coagulation.

(6) The addition of hydrochloric acid or calcium chloride, or both these substanies, to milk assists the formation of a clot after the addition of inactive pancreatic juice and of enterokinase.

(7) Enterokinase alone does not cause clotting of milk.

(8) Inactive pancreatic juice, activated pancreatic juice and enterokinase all three cause the production of the "metacasein reaction."

(9) There is no evidence of the presence in pancreatic juice of a milk-curdling ferment identical with that in gastric juice.

(10) The milk-curdling property of activated pancreatic juice appears inseparable from its proteolytic ferment.

In conclusion we wish to express our thanks to Professor Sir Thomas Anderson Stuart, in whose laboratory this research was conducted.

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## Reports of Cases.

### VASO-MOTOR DISTURBANCES IN RAYNAUD'S DISEASE.

By **A. W. F. Noyes, F.R.C.S. (Ed.),**
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A man, aged 29 years, whose general health appears to be good, has been the subject since childhood of a vascular disturbance about the hands and trunk.

On the hands there appears that peculiar vascular condition due to defective vaso-motor balance and characterized by the anæmic or white stage, the cyanotic or blue stage, and the arterial hyperæmia or red stage, due to over excitability of the vaso-motor centre in the cord.

The local anæmia is due to definite contraction of the terminal vessels. The muscular apparatus connected with the venous coats is less strong than that in the arterial; it tires first, relaxation takes place and venous congestion ensues; finally the muscle fibres in the arterial coats give way, producing arterial hyperæmia. This sequence of vascular events is usually the result of exposure to lowered

temperature or to emotional disturbance. In the patient under observation they are more constant than usual. Associated with this defective vascular balance in the hands there is a condition on the trunk which has induced me to bring the case under notice. It is composed of a bluish mottling, distributed back and front, and consisting of split-pea-sized, rather thickly set, venous lesions, giving somewhat the appearance of a measle eruption. This has existed, like the condition on the hands, as long as the patient can remember.

In a contribution to the *Australian Medical Journal* (December, 1893, February, 1894), after the analysis of a very large number of recorded cases of Raynaud's disease, I considered that the changes in the peripheral circulation of the extremities are but one set of links in the clinical chain.

I concluded that the morbid phenomena may exhibit themselves not merely as a series of vascular changes in the extremities, but also by similar changes in the vessels of the nervous system, respiratory tract, genito-urinary system and alimentary tract, giving rise to such symptoms as epileptiform seizures, megrim, bronchial catarrh, hæmoptysis, epistaxis, hæmoglobinuria, menorrhagia, gastric disturbances, etc.

This enlarged field being recognized, I consider it interesting to note in the patient under observation the widespread congestion, giving rise to the mottled condition of the trunk described above in an individual with signs of Raynaud's disease.

# Reviews.

## WAR MEDICINE.

We have read a book by Arthur F. Hurst on "The Medical Diseases of the War"[1] not without interest, nor without profit. Dr. Hurst has had, as he tells us in the preface, "constant opportunities of studying every phase of the various diseases occurring on active service." He has made good use of his opportunities. The book is "a record of his own observations, amplified by a study of the literature." In this work the author deals with functional nervous diseases, dysentery, trench fever, paratyphoid fever, epidemic jaundice, beri-beri, soldier's heart and war nephritis.

The chapter on functional nervous diseases is, to our mind, the most interesting and the most instructive. But the other subjects dealt with are discussed in a very practical and common-sense way. Dr. Hurst gives his own views freely, but while doing so he does not hesitate to acknowledge his indebtedness to the authors of books or papers from which he has gathered information.

Many cases of functional nervous disease of surpassing interest are quoted. The author explains the conditions observed in many instances, largely on the grounds of auto-suggestion, and it must be conceded he has made out a very good case indeed. Holding these views, he has based the treatment of such patients on suggestion—suggestion during the hypnotic state, which he states is easily induced in these patients. The results of such treatment, according to the cases quoted, have been surprisingly successful, especially if the treatment be adopted soon after the onset of the disorder.

In this chapter, where the pathogenesis of the condition—shell shock—is discussed, certain statements are made which should not pass without comment. The author states that in cases of men blown up by shell explosions "the tendon reflexes were exaggerated, . . . plantar reflex was extensor, there was extreme hypotonus of all the muscles, fæces and urine were passed involuntarily. All these symptoms passed off within a few hours. In such cases it is clear that organic changes have occurred in the central nervous system, which are, however, so slight—consisting, probably, of minute capillary hæmorrhages and chromatolysis of nerve cells—that they rapidly and completely disappear." We would suggest that such an explanation is insufficient. Surely the cerebral circulation is grossly disturbed by the shell concussion, and the amount of the disturbance is not to be estimated by the probable existence of minute capillary hæmorrhages. We gladly express our view that Dr. Hurst has thrown a great deal of light upon a very difficult subject.

We have noted with pleasure that the author advocates the treatment of the majority of cases of "soldier's heart" by means of graduated exercise rather than by rest. This is in accordance with our own views. We regret that in discussing the ætiology of "soldier's heart" Dr. Hurst does not make mention of the food factor. In Gallipoli, at any rate, insufficient or imperfect food, food lacking in vitamines, was the cause of many cases of beri-beri. Such a food one would think could not have been without evil effect on the cardiac musculature.

We recommend this book to our readers. He who reads it will be interested and instructed on a variety of subjects, dealt with by one who speaks most often from first hand knowledge gained by careful and close observation.

[1] Medical Diseases of the War, by Arthur F. Hurst, M.A., M.D. (Oxon.), F.R.C.P., 1917. London: Edward Arnold; Demi 8vo., pp. 151. Price, 6s. net.

## UNIVERSITY PUBLICATIONS.

The January number of the *Sydney University Medical Journal* reflects great credit on its Editor and on those associated with him. As usual, the light side of life is especially prominent, and the caricatures and the pen sketches are very clever. The contributors to the nonsense columns are in first-class form, and prepare amusement for the reader. We would reproduce some of the pithy wit, but this would defeat the ends we have in view: to increase the list of subscribers to this delightful publication. The serious things of medical and scientific life are also represented, and are well prepared. There are splendid reproductions of life-like likenesses of the late Captain Plant, Captain Roger Hughes and Lieutenant Woodhill, and brief records of their careers, penned by their intimate friends. Drs. Archie Aspinall and Charles MacLaurin contribute interesting articles on their war experiences, while Dr. Chapman delivers a digestible discourse on diabetes and starches. Dr. Stewart McKay has written enthusiastically of Lawson Tait, and Dr. S. J. Johnston gives much useful information concerning lice, fleas, bugs, ticks and other pleasant companions.

The February number of the *Adelaide Medical Students' Society Review* contains a mass of interesting material, and some a little heavy. Its Editor, Mr. F. H. Beare, with his two Assistant Editors, are to be congratulated on the fruits of their labours. We learn with regret that the Editor makes his exit with this number, and gives place to another. Since every student member of the Society has a sort of proprietary right in the *Review*, those responsible for its existence are amply justified in appealing to them all to support it. Its functions are to further the interests of the Society and of the Medical School, to place before the members medicine in a palatable form, to inform graduates and others of the doings of members and past members, to amuse and to assist in whiling away a pleasant half of an hour. The retiring Editor urges members to make their plunge into the sheltered waters of the *Review*, instead of braving the stormy seas of the *British Medical Journal* or *The Medical Journal of Australia*, but we would wish to amend this advice by inviting the members who have "views" or medical facts to relate to support the last as well as the first-named publication. The current issue of the *Review* contains records of clinical cases written by Dr. J. C. Verco (what better guarantee can anyone require for soundness of teaching and excellence of presentation?), war experiences and other articles of merit. The personal notes teem with interest to Adelaide men, and a couple of humourous black-and-white sketches, together with a collection of light-hearted nonsense complete a volume of value to the members of the Society.

A correspondent informs us that he has received news of the following medical men an active service, and that they are all well: R. Aspinall, A. S. D. and J. a'B. Barton, E. and B. Docker, W. M. A. Fletcher, T. M. Furber, G. Bell, W. E. Kay, B. J. Newmarsh, H. R. G. Poate, W. J. Stack, H. St. Vincent Welch and C. E. Wassall.

The Medical Journal of Australia.

SATURDAY, MARCH 24, 1917.

## Negotiation.

The Council of the Victorian Branch of the British Medical Association determined, at its meeting held on February 28, 1917, to reopen negotiations with the Friendly Societies, and instructed the Secretary to convene a meeting of the five representatives of the Victorian Branch and the five members of the Friendly Societies for this purpose. During the past few weeks we have published a considerable amount of correspondence on this subject. The question at issue is of vital importance to the profession in Australia, and is one that demanded attention before the war began, and not less since it has become protracted. It is held by some that contract practice is undesirable and undignified, and that it should be done away with. While this proposal has much to recommend it, it must be remembered that contract practice originated as a remedy for the abuse of the charity of the members of the medical profession, since it gave persons of small means a chance of securing medical attendance when overtaken by illness, for which they could not pay under ordinary conditions. This historical fact should be borne in mind, because all the conditions of lodge practice should be based on the fundamental proposition that medical men are willing to accept a small amount paid regularly throughout the year from persons who are not able to pay private fees, and to give in exchange medical attendance to the contributors during sickness. This means that persons in comparative affluence must be excluded from the benefits and advantages of lodge practice, and that the contribution should be as large as the means of those who take advantage of the arrangement will permit. Contract practice is thus an arrangement intermediate between charity and the claiming of full fees. During the negotiations which were interrupted in 1914 one of the spokesmen representing the Friendly Societies sought to argue that the increase in rates were out of proportion to the amounts paid in the past and being paid in the present. He attempted to standardize the normal income of medical men by quoting the remuneration of Government medical officers. This form of argument is wholly beside the mark, because medical men, in accepting positions as lodge medical officers, are making a concession to persons of small means, and are undertaking to treat them at less than ordinary fees because they are not well-to-do. Sweating in the past is rather a reason for material increase in rates in the future. The doctor in private practice does not conform to the standard of the departmental officer, and a standard based on the average incomes of the latter has no application to the former.

Negotiations are about to be resumed, and it becomes necessary to raise the question—what is there to negotiate about? Negotiation suggests a discussion on the facts and an attempt to arrive at an understanding mutually satisfactory to the two parties. Negotiations of this kind are mere waste of time in connexion with lodge practice in Victoria, or indeed in any part of Australia. In *The Medical Journal of Australia* of January 23, 1915, we published in parallel columns the various "Common Forms of Agreement" between Friendly Society Lodges and Medical Officers of the Lodges. The terms of the six forms of agreement varied in some particulars, but it may be taken that the conditions contained in these documents represent the minimum demands of the doctors. At that time the standardized conditions had been enforced in New South Wales, and it is obvious that less favourable conditions should not be accepted elsewhere. In view of the fact that the Friendly Society Lodges in New South Wales have gradually fallen into line and with but few exceptions now recognize the advantages of the existing Common Form of Agreement, further argument becomes unnecessary. The negotiations thus resolve themselves into a meeting between representatives of the Friendly Societies and those of the doctors, and an invitation by the latter to accept their minimum terms. If the Friendly Societies refuse the terms which have proved to be equitable from every point of view, the members holding lodge appointments must sever their con-

nexions with the lodges and revert to the ordinary manner of conducting medical practice. A formal meeting could take place, and the representatives of the Friendly Societies' Association could be requested to give a reply either there and then or after the lapse of a short period, to be fixed and adhered to. In these circumstances there would be no need for the well-intentioned intervention of our correspondent who signs herself "Doctor's Wife," and to whose husband's apathy the offer of uxorial help is to be attributed. The Victorian Branch Council has determined to place contract practice on a proper footing in the State at once. By doing this, the remaining Branches which have not yet undertaken this task will be placed in a much stronger position, and we have little doubt that within a comparatively short time we shall have uniform conditions obtaining throughout the Commonwealth. Delay in formulating the conditions is dangerous, in view of the possible introduction of some form of national insurance. There must be uniformity throughout the States if the profession is to command a recognition of its rights.

## TYPHOID AGGLUTININS.

One of the most important problems that the medical profession has to solve is the mechanism of immunity. In the course of many years knowledge has been accumulating, and at the present time it may be claimed that certain aspects of this highly complicated condition are understood. More facts must, however, be brought to light before we can explain exactly why a person is immune to enteric fever after having recovered from an attack, and why other people can expose themselves to various infections without suffering any harm. Much has still to be assumed in replying to the question why an attack of an infective fever comes to an end after a more or less definite course has been run, and why from time to time a relapse occurs, notwithstanding the fact that recovery is always followed by immunity. The factors which have been studied and which presumably contribute to the production of natural immunity include the formation of bacteriolysins, the increase in the phagocytic activity of the leucocytes, the production of antitoxins and other antibodies of this nature and the appearance of agglutinins. It is certain that many other factors of which we have no knowledge are concerned in the general reaction spoken of as immunity. In the present deficient state of knowledge it is difficult to estimate the significance of the known factors in connexion with any one disease. Two means are being employed to throw light on this subject. The first is the investigation of the frequency with which a particular reaction can be elicited during an infection. The second is the determination of the titre of the serum which yields the reaction in persons who have not been infected, and in those who have recovered from an infection. While it may be impossible to determine why or how agglutination effects protections against a further attack of a micro-organism, there is no doubt that the phenomenon of agglutination of the *bacillus typhosus* is of reliable diagnostic value, and that an immunity to enteric fever is usually and perhaps invariably associated with a distinct power of the serum to agglutinate the specific germs. With common consent this reaction is used to test the degree of protection of anti-typhoid inoculation. During the currency of the war this test has become somewhat complicated by the frequency with which these inoculations have been carried out, and the fact that enteric fever has occurred in a number of soldiers, a few, it is true, of whom have been inoculated. Surgeon S. L. Baker, R.N.,[1] has attempted to interpret the results of over a thousand Widal reactions in patients at the Royal Naval Hospital at Haslar. He has found that the agglutinating power of the serum diminished in proportion to the length of time elapsing since the inoculation. In order to test the significance of agglutination in persons who had been inoculated, and in those who had suffered from enteric fever he estimated the average time which had elapsed since the inoculation for each group of sera arranged according to the titre required to effect agglutination. Utilizing a formula to express the averages, he was able to demonstrate that in his complete series of patients the average time that had elapsed since inoculation was highest in the group of sera giving a negative reaction, was shorter in

[1] *Journal of the Royal Naval Medical Services*, January, 1917.

the group of sera giving a positive reaction in dilution of 1 in 25, was still shorter in the groups of sera giving a positive reaction in dilutions of 1 in 50 and 1 in 150, but was highest of all in the group of sera giving a positive reaction in a dilution of 1 in 250. Further investigation revealed the fact that this rise in the curve was due to the agglutinins developed as the result of an attack of enteric fever, while the diminishing reaction represented a fading reaction due to inoculation. He suggested that when an agglutination reaction is obtained with a dilution of 1 in 250 in an individual who has received a preventive inoculation more than six months before, the individual has in all probability suffered from enteric fever. Surgeon Baker was more interested in estimating the prevalence of enteric fever among his patients than in establishing a principle. If his observations are reliable, and there is every probability that they are, we must recognize that the agglutinating power of the serum diminishes rapidly after inoculation and is low at the end of six months. On the other hand, an attack of enteric fever raises this power of the serum, and the new property is maintained for a considerable time. In other words, the agglutination phenomenon runs almost parallel with the protection against enteric fever. The establishment of such a dogma would go far toward elucidating the occurrence and nature of immunity against enteric fever.

## THE DAKIN-CARREL METHOD OF WOUND TREATMENT.

With the object of lessening the dangers of gas gangrene, septicæmia and chronic suppuration in wounds produced by shells, grenades, etc., Dakin and Carrel have carried out an important investigation under the auspices of the Rockefeller Foundation. They have devised a system of wound treatment which, if used according to their directions, produces excellent results. Briefly, this consists in the periodical introduction of a solution (Dakin's solution), containing a definite amount of sodium hypochlorite into wounds, by gauze packs or by a system of fine rubber tubes perforated in the portion inserted into the damaged tissues (Carrel's tubes). It is necessary that all foreign material should first be removed from the wound, and that the treatment should be instituted as soon as possible after its infliction. The wounds are tested bacteriologically from time to time, and when surgically clean are closed by sutures, with the result that healing takes place as by first intention. In the case of flesh wounds, a few days of treatment with the solution will suffice before suturing, while in cases of acute and chronic osteomyelitis and epiphysitis 15 to 25 days' treatment will enable the surgeon to close the wounds with the hope of securing a subsequent aseptic course. Even where plating, bone-grafting, wire suture or plastic work has to be carried out, a like result is generally obtained if no reinfection be caused by the surgeon. If the authors' claims can be substantiated, it is evident that the reduction of the sum total of human suffering will be considerable, the patient's stay in hospital greatly shortened, and the work of nurses and doctors much reduced.

Sufficient time has now elapsed since the introduction of the method for a judgement to be formed as to its efficacy. In the hands of those who have minutely followed Dakin and Carrel, more specially French surgeons, it is unquestionable that a vast improvement upon the results by other and similar methods has been obtained. Others, however, are not so enthusiastic; but it would appear that these have neglected important details insisted upon by the authors. Thus, it is necessary that the solution should be properly prepared by expert chemists, that free caustic alkali should be absent, that the proportion of sodium hypochlorite should be not less than 0.45% and not greater than 0.5%, and that accurate titration methods should be employed to secure these desiderata. The preparation of the solution is therefore difficult. In addition, it must be freshly prepared and properly stored. Much attention to detail in the introduction of the solution is also necessary, and, further, it is advisable that the same nurses and doctors should carry out the treatment in any particular case. Whether all these minutiæ are capable of being attended to under service conditions remains to be seen. Some say that they are not; but if the Dakin-Carrel method of wound treatment has half the advantages claimed for it by its advocates, it is the duty of the Medical Services to give it a faithful trial, even if there has to be an alteration in some matters of detail in the treatment of the wounded under active service conditions.

The conditions of civil practice, especially in hospitals, would enable an extended trial to be given to this method of wound treatment, and it may be pointed out that, although the solution cannot be used intravenously, it may have a useful part to play in the treatment of such affections as empyæma, abdominal abscess, septic bladders and suppurative processes generally.

## BLINDED SOLDIERS.

The war is responsible for many modifications of familiar phenomena. Surgery has undergone a marked modification owing to the nature of accidental infection of wounds and owing to the characters of the missiles inflicting them. Medicine now includes several affections which were unheard of in the pre-war days. The problems affecting the after-care and re-education of wounded men differ

in various respects from anything the nation has had to face in the past. Mr. Arnold Lawson, F.R.C.S., who is the Opthalmic Surgeon in charge of St. Dunstan's Hostel for blinded sailors and soldiers in Regent's Park, London, has pointed out to the Medical Society of London that fresh methods are required for the adequate training of the war blinded. He explained that in peace time, the blind are either persons who have never seen or persons who have lost their sight late in life. These two classes supply the great majority of sightless human beings. The war has blinded robust young men. This means that the victims have suddenly become deprived of the chief means of combating the world at a period of life when hope and expectation are at their highest. The effect is twofold. The loss of sight produces a depression and loss of independence which must be destructive of future prosperity and enjoyment of life, unless combated. In the second there is the natural buoyancy of youth, which even sudden blindness cannot efface, and which can be utilized in the successful training of these unfortunate men. The first lesson derived from these observations is that the expression of compassion and pity are entirely out of place in an institution like St. Dunstan's Hostel. The man is taught from the beginning that he must accept his lot as inevitable, but not as a disability. In the next place, divers means must be devised to reawaken the man's sense of independence. The blind man must never be conscious of being helped by others. His environment is explained to him; he is taken through the place where he is to learn his handicraft, and then he is left to his own devices to find his way about. He is unaware of the simple means which are adopted to assist him in moving about freely. Mr. Lawson recognizes that a person suddenly deprived of sight is naturally suspicious, and often misconstrues the intentions of strangers. The recognition of this enables those associated with the blind to overcome it, and to awaken a sufficient amount of trust to enable him to take his place in the world. Only a small proportion of blinded soldiers will expend the necessary amount of patience and attention to learn the Braille language, but the majority rapidly master the intricacies of the typewriter. Each man who has passed a stiff test in typewriting is presented with a machine on leaving St. Dunstan's. He paints the future of the blinded soldier in rosy terms.

## SPURIOUS NEOSALVARSAN.

We learn from the *Pacific Medical Journal* of February, 1917, that an individual named Strandgaard, of Toronto, Canada, has attempted to flood the market in Canada and the United States with ampoules, containing either starch or common salt, put up in imitation of well-known brands of neosalvarsan, and sold as this substance. It appears that during the months of August and September, 1916, and again when Strandgaard was arrested in connexion with a widespread conspiracy to defraud the United States Government out of customs revenue by smuggling salvarsan and neosalvarsan into the United States, a number of women were engaged in offering the spurious articles of Strandgaart for sale to practitioners and pharmacists. It is not impossible that the effects of these frauds may reach Australia, and in view of this possibility we would warn practitioners purchasing salvarsan and neosalvarsan to be on their guard against spurious substitutes.

# Medical Matters in Parliament.

## VICTORIA.

(*Continued from page* 237).

The Legislative Council went into committee upon November 29, 1916, for the further consideration of the Venereal Diseases Bill.

Consideration was resumed with clause 2, reading:

> "Venereal disease" means gonorrhœa, gonorrhœal ophthalmia, syphilis, soft chancre, venereal warts or venereal granuloma.

The Hon. W. J. Beckett moved that the word "gonorrhœa" be omitted. He urged that gonorrhœa was a much less serious disease than syphilis. A patient with gonorrhœa could be cured in two or three weeks. The treatment of a patient with syphilis should last two or three years. He believed that personal cleanliness would do much to prevent the spread of gonorrhœa. If men used the Red Cross packet as a preventive against venereal infection, gonorrhœa would soon be a thing of the past.

The Hon. W. S. Manifold read a communication from Dr. Felix Meyer as follows:—

> 1. Notwithstanding the advance of knowledge, gonorrhœa still remains one of the most difficult of diseases to cure; its tendency is to become chronic. The disease may be latent and unsuspected in the man for years. He honestly believes himself cured—only to find he has infected his wife. The evil is perpetuated by charlatanism, and by ignorant, unqualified and irregular practitioners.
>
> 2. Nothing is more damaging (cancer excepted) to a woman's special organs than the infection of gonorrhœa. Unless recognized early and immediately treated, it spreads, setting up internal abscesses, which often cause peritonitis and death. In non-fatal cases the commonest results are sterility, chronic invalidism, and inability to perform the duties of wife or mother. From the economic standpoint, the loss to the State is great.
>
> 3. Other results are (both for men and women) obstinate diseases of the joints, affections of the heart, rheumatism and blindness (especially in newly-born children) from the discharges.
>
> 4. At least 50 per cent. of the ailments for which women in all grades of society consult specialists are due directly or indirectly to gonorrhœal infection.

He added that the President of the Victorian Branch of the British Medical Association supported the inclusion of gonorrhœa in the Bill.

The Hon. J. P. Jones said that the infection of innocent persons by those suffering from gonorrhœa justified the inclusion of those persons within the Bill. He regarded gonorrhœa as a most dangerous disease. Further, gonorrhœa was much more widespread than syphilis as a venereal disease.

After the Hon. W. J. Beckett had replied, the amendment was negatived and the clause adopted.

Clause 3 was postponed.

Clause 4 was adopted.

Clause 5, dealing with those who may prescribe for or attend upon sufferers from venereal diseases, was debated at length.

The Hon. W. J. Beckett moved to omit sub-clause 3, reading:—

> (3) This section shall not apply to a registered pharmaceutical chemist who dispenses to the patient of a medical practitioner the prescription of such practitioner

if such prescription is dated and bears the address and usual signature (including the surname) of such practitioner or who sells or supplies any drug or medicine (except such drugs or medicines as are specified by regulations under this part of this Act) in the ordinary course of his business, provided that such drug or medicine is not prescribed by such chemist for any person suffering from any venereal disease for the purpose of curing, alleviating, or treating such disease.

with a view to inserting:—

"(3) This section shall not apply—

(*a*) to a registered pharmaceutical chemist who dispenses to the patient of a medical practitioner the prescription of such practitioner;

(*b*) to a registered pharmaceutical chemist who sells or supplies or any person who under a permit in writing from the Minister (which permit the Minister is hereby empowered to grant) sells or supplies to any person any patent or proprietary drug or medicine for the purpose of curing, alleviating, or treating any venereal disease from which such person is suffering, if such drug or medicine is one that has not been proscribed by the Minister as fit to be sold or supplied for the purpose of curing, alleviating, or treating such disease; or

(*c*) to the sale or supply by a registered pharmaceutical chemist in the ordinary course of business of any drug or medicine not being a patent or proprietary drug or medicine which has not been approved as aforesaid and not being prescribed by him for the purpose of curing, alleviating, or treating any venereal disease:

Provided that a permit as aforesaid shall not be granted to any person who is not a pharmaceutical chemist unless no pharmaceutical chemist carries on business within 10 miles of the place of business of such person."

The Hon. A. Robinson (Honorary Minister) opposed the amendment. He said that the chemists had agreed to sub-clause (3).

The Hon. J. P. Jones stated the reasons why registered medical practitioners alone should treat patients suffering from venereal diseases.

After much discussion the amendment was withdrawn.

The Hon. W. S. Manifold moved to omit the words "if such prescription is dated and bears the address and usual signature (including the surname) of such practitioner" from sub-clause (3).

After discussion the amendment was withdrawn.

The Hon. W. J. Beckett moved to omit sub-clause (3).

The amendment was negatived.

The Hon. W. J. Beckett moved the following new sub-clause:—

(4) This section shall not apply to the sale or supply by a registered pharmaceutical chemist, in the ordinary course of business, of any drug or medicine not being a patent or proprietary drug or medicine which has not been approved as aforesaid, and not being prescribed by him for the purpose of curing, alleviating, or treating any venereal disease.

The amendment was withdrawn and clause 5 adopted.

Clause 6 was adopted after some discussion upon an amendment, proposed by the Hon. W. J. Beckett, that it be a defence in any prosecution for not obtaining treatment, that the patient was not within twenty miles of a medical man or that the patient had consulted a medical practitioner by letter.

The amendment was withdrawn.

On clause 7 providing *inter alia*—

(1) Every person suffering from any venereal disease who has consulted and placed himself under treatment by a medical practitioner, or has attended and placed himself under treatment at a hospital or other prescribed place, shall (until he has received a certificate of cure, or of being free from venereal disease), personally attend or cause himself to be attended by a medical practitioner, or personally attend at a hospital or other prescribed place for the purpose of treatment and advice at least once in every such period not exceeding four weeks, as is prescribed, and shall follow the advice given by such medical practitioner, or by a medical practitioner, at such hospital or place.

Any person guilty of a contravention of this sub-section shall be liable to a penalty of not more than £20.

the Hon. A. Robinson moved that the words "not exceeding four weeks" be omitted.

The amendment was agreed to and the clause as amended adopted.

Progress was reported.

The House sat again in Committee upon December 5, 1916.

Clause 8, dealing with the notification of a patient neglecting treatment, was adopted after some opposition from the Hon. D. Brown, who objected to notification.

On clause 9, reading—

(1) If any patient who has been attending or treated by a medical practitioner for any venereal disease fails to consult or attend such medical practitioner at least once during every such period as is prescribed, not exceeding a period of six weeks, and the medical practitioner has not, within that period, received from another medical practitioner a notice that the patient has changed his medical adviser, such first-mentioned medical practitioner shall send to the medical inspector, in the prescribed form, a notice of the facts, including the name and address of the patient.

(2) Any medical practitioner whose duty it is to do so who does not send the said notice to the medical inspector shall be liable for a first offence to a penalty of not more than £20, and for a second or any subsequent offence to a penalty of not less than £20 or more than £100.

The Hon. A. Robinson moved that the words "not exceeding a period of six weeks" be omitted.

The amendment was agreed to.

The Hon. A. Robinson moved that the words "within that" be omitted with a view to inserting the words "before the expiration of one week after the said."

The Hon. J. D. Brown moved that the words "one week" in the amendment be omitted with the object of inserting "ten days."

The amendment was agreed to, and Mr. Robinson's amendment as amended was adopted.

The Hon. J. D. Brown moved that the words "in a sealed envelope marked confidential" be inserted after the word "inspector" in sub-clause (1).

The amendment was agreed to. The clause as amended was adopted.

On clause 10, providing *inter alia*—

(1) Every medical practitioner who attends or advises any patient for or in respect of any venereal disease from which the patient is suffering shall—

(*a*) by written notice in the prescribed form delivered to the patient—

(i) direct such patient's attention to the infectious character of the disease and to the legal consequences of infecting others; and

(ii) warn the patient against contracting any marriage until certified as cured; and

(*b*) give such patient such printed information relating to the disease, and the duties of patients, as is prescribed.

the Hon. A. Robinson moved that after the word "attends" the word "treats" be inserted.

The amendment was agreed to.

The Hon. A. Robinson moved that after the word "shall" the words "except in the case of a child" be inserted.

The amendment was agreed to.

The Hon. A. Robinson moved—

That the following new sub-clause be inserted—

(2) In the case of a child suffering from any venereal disease, every medical practitioner who attends, treats, or gives advice with respect to the child shall give to the parent or guardian, or other person in charge of the child, such directions and printed information as are prescribed.

The amendment was agreed to.

(*To be Continued.*)

# Abstracts from Current Medical Literature.

## MEDICINE.

### (91) Cerebro-Spinal Meningitis in the Navy.

H. T. Rolleston publishes an account of the cases of cerebro-spinal fever which have occurred in the Royal Navy during the second year of the war (*Journ. Royal Naval Med. Service*, January, 1917). During the first year of the war there were 170 cases, and during the second year there were 104. This fall in frequency is coincident with a similar fall affecting the civil population. Not only has the number of cases been smaller, but the disease has been less widespread. It was discovered that 2.7% of the sailors examined (10,842) were carriers. The youngest patient was 15 years, and the oldest 46. A large proportion, *viz.*, 87.3% of the population were under 20 years of age, and only 9.6% were over 30. In the first year of the war 60.6% of the patients were under 20 years of age. The mortality was 35.6%, as compared with 52.9% in the year ending July 31, 1915. In eight cases the onset was sudden, and the patients were found in an unconscious condition. In four cases the initial symptoms suggested pneumonia or acute bronchitis, and in one appendicitis. In 11 instances the disease started shortly after a journey, and in 13 within three weeks of joining the service. It followed measles in three cases, and drunkenness with head injury, influenza and vaccination in a few cases. A rash was present in 41% of the patients. In the majority of cases it was of a petechial or hæmorrhagic nature, while in a few there was a macular rash or a rose rash. A profuse hæmorrhagic rash nearly always indicated a fatal termination. The rash was noticed, as a rule, on the first or second day. Herpes was present in 22.2% of the cases. Among the rarer manifestations and complications were photophobia, conjunctivitis, conjunctival hæmorrhage, panophthalmitis, stabismus, nystagmus, von Gräfe's sign, hemiplegia, facial paralysis, dysartharia, disphagia, delirium tremens, pericarditis, hæmaturia, epididymitis, synovitis and acute otitis. Relapses of a fatal nature were not uncommon in cases with chronic hydrocephalus. The diagnosis was not regarded as confirmed unless meningococci were found in the cerebro-spinal fluid. At times the organisms were present in the naso-pharynx; these cases were not regarded as cases of epidemic cerebro-spinal meningitis. The organism was recovered from the naso-pharynx in 21.3% of undoubted cases of the disease. Of the 104 cases, nine did not receive any serum. One patient was treated with soamin and died, six were treated with lumbar puncture alone, and four died, while in the two remaining patients the disease was discovered after death. There were 95 patients treated by intrathecal injections of some form of serum, and 30 of them died. This represents a mortality of 31.6%. The mortality among the patients treated with serum during the first year of the war was 61%. The author attributes the improvement to the inclusion of more antibodies in the serum employed in the second year. No other form of specific treatment was applied in 60 of the patients. Death occurred in 18 of these. In the remaining 35 hypodermic or intramuscular injections of the serum, vaccines, soamin or hexamine were employed in addition. Twelve of these patients died. The death-rate in cases treated up to the end of the third day was 29.7%, and between the fourth and seventh day was 33.3%. Three of the six patients who received serum later than the seventh day died. Flexner's serum was used alone, or with other sera, in 39 cases, with nine deaths; Gordon's serum was used alone, or with other sera, in 22 cases, with six deaths; the Pasteur Institute serum was used alone, or with other sera, in 14 cases, with five deaths; Burroughs, Wellcome & Company's serum was used alone, or with other sera, in 14 cases, with three deaths; Mulford's serum was used alone, or with other sera, in 12 cases, with six deaths; and the Lister Institute's serum was used alone in eleven cases, with six deaths. Serum rashes were noted in 23% of the cases, and joint symptoms followed the use of Flexner's and Burroughs, Wellcome & Company's sera in a few cases. The author concludes his article with an account of the outbreak of cerebro-spinal fever at various centres.

### (92) Tuberculin Therapy.

W. Meyer found, in the course of his practice, that some patients suffering from tuberculosis improve to a greater extent when more than one kind of tuberculin is used (*Medical Record*, January 27, 1917). He has been in the habit of using Koch's old tuberculin (T.O.), Koch's bacillary emulsion (B.E.), and Denys's bouillon filtrate (B.F.). In order to ascertain the therapeutic value of these three preparations alone, and compare them with a mixture of the three, he has selected five cases treated by each method, and gives the results The dose of B.E. employed was 0.0000001 as the first and 0.2 as the maximum dose. The initial dose of T.O. was also 0.0000001 and the maximal dose 0.25. The same doses of B.F. are also used. All the cases subjected to treatment were typical, with tubercule bacilli in the sputum, with fever up to 99° or slightly higher, with cough and expectoration, with night sweats, dyspnœa and definite signs at one or both apices. The average weight at the beginning was 131 pounds. After some four to seven months treatment with B.E. the gain in weight averaged 2½ pounds. The temperature had become normal in four patients. Bacilli had disappeared from the sputum in all the patients, but reappeared in three some months later. Hæmoptysis had taken place in two during the treatment, and in three later on. The signs and symptoms had improved somewhat. After treatment with T.O. the average gain in weight was 2¾ pounds. The temperature became normal in all, but reappeared in two after six to nine months. One patient had hæmoptysis. The bacilli disappeared from the sputum in four patients. The improvement in the physical signs and general condition was more marked than in the patients treated with B.E. The average gain in weight after treatment with B.F. was 2 pounds. In four patients the temperature became normal, and in two the bacilli disappeared from the sputum. Cough and expectoration became less. The general improvement was slow. In the five patients treated with a mixture of tuberculins the gain in weight averaged 2¾ pounds. No patient had hæmoptysis. The temperature became normal in all, and remained normal. Bacilli disappeared from the sputum in all the patients. One patient continued to have a slight cough, but no expectoration and no night sweats, while these symptoms disappeared in the other four. The physical signs were very markedly improved, and the breathing became almost normal. The author refuses to draw any conclusions, but recommends others to study the effect of this form of treatment.

### (93) The Treatment of Pernicious Anæmia.

H. Z. Griffin (*Journ. Amer. Med. Assoc.*, February 10, 1917) has investigated a series of cases of pernicious anæmia treated by splenectomy between August 1, 1914, and April 1, 1916. In 19 cases transfusion was carried out prior to the operation. In eight of these cases marked improvement followed the transfusion. The hæmoglobin content of the blood rose rapidly, and the number of red corpuscles was greatly increased. In the other cases the improvement was less marked. Many of the patients were benefited to such an extent that the operative risk was almost removed. In all, 31 patients were operated on. Three died, and of the remaining 28 22 were considerably improved during the following three months. The improvement was maintained in 11 for a further three months. The result of the removal of the spleen was a leucocytosis dependant on polymorpho-nuclear leucocytes and on normoblasts. The gain in hæmoglobin was gradual in the majority of cases, while the number of red blood corpuscles rose steadily, and in one case reached 5,200,000. The appetite and general strength improved at an early date, and all but two of the patients lost their icteroid tint. He ascribes this to a partial or complete elimination of hæmolysis. Simultaneously with the disappearance of jaun-

dice, the bilirubin, urobilin and the urobilinogen excreted diminished. Five of the 28 patients who recovered died eventually. In two the death occurred within three months. The spleen in one of these patients weighed 1,120 grammes. The third patient improved for six months, but died at the end of nine months. Another patient died twelve months after the operation; in this case the hæmoglobin had reached 90% and the red corpuscles 4,000,000 seven months after the operation. The fifth patient died three years after the splenectomy. Relapses occurred in three cases. In summing up his experience, he deduces that splenectomy would seem to be warranted as a means of treating pernicious anæmia in young and middle-aged patients with good general resistance. He advises the operation when there is evidence of hæmolysis, and when the spleen is moderately enlarged. He finds that the estimation of the blood-derived pigments in the duodenal contents is valuable in determining the degree of hæmolysis. The operative risk is large when the hæmoglobin content is below 35% and the red corpuscle count is less than 1,500,000. Transfusion before operation and during post-operative relapses has proved of value.

## NEUROLOGY.

### (94) Huntingdon's Chores in Relation to Heredity and Eugenics.

A study by Davenport and Mouncey (*Amer. Journ. Insanity*, October, 1915) of four family histories in Long Island, Connecticut and Massachusetts, which showed nearly 1,000 cases of Huntingdon's chorea, yielded the remarkable result that practically all could be traced back to some half-dozen persons, including three (probable) brothers, who migrated to America during the seventeenth century. It was not surprising that numerous "biotypes," having specific and differential behaviour, had appeared. Thus there was a "biotype" in which the tremors were absent, but mental deterioration was present; a "biotype" in which the tremors were not accompanied by mental deterioration; a "biotype" in which the chorea did not progress; and a "biotype" in which the onset of the choreic movements took place in early life. In general, the symptomatology of chronic chorea was dissimilar in different strains of families. The age of onset, the degree of muscular involvement, the extent of mental deterioration, all showed family differences, hence allowing the recognition of various species or "biotypes" of the disease. These "biotypes" were made less striking by the extensive hybridization, which was taking place between "biotypes" in random human matings. Among the 3,000 odd relatives of the 962 choreics studied, many nervous traits were recorded. Thus, epilepsy was found 39 times, infantile convulsions 19 times, meningeal diseases 51 times, hydrocephalus 41 times, feeble-mindedness 72 times, Sydenham's chorea 11 times, and tics 9 times, mostly in one small family. This incidence, which would seem high for an unselected population, suggested that chorea occurred in families characterized by a general liability to nervous and mental troubles. Though it could be shown that the 962 cases of chorea originated from six or seven ancestors, that the disposition had been handed down almost without a break throughout the generations, and that for generations there had been individuals who recognized the hereditary nature of the disease, and were influenced in marriage accordingly, there was no clear evidence that persons belonging to the choreic lines voluntarily or to any obvious degree abstained from marriage, or, in finding a mate, exercised prohibitive care.

### (95) The Syndrome of the Globus Pallidus.

Ramsay Hunt (*Journ. Nerv. and Ment. Dis.*, November, 1916) took up the problem of the pathology of *paralysis agitans*. Since there were three different types of the disease, the presenile, the symptomatic and the juvenile, as well as various subdivisions, for example, *"formes frustes,"* paralysis agitans without agitation and paralysis agitans without rigidity, he maintained that the affection could not represent a single disease, corresponding to one uniform pathological condition. It was rather a syndrome, including more than one affection, differing pathologically and even clinically, and yet bearing a general resemblance to one another, as did cases of spastic paralysis. He related two cases of the juvenile type of the disease, supervening at or about the age of fifteen, and lasting for twenty-five years, in one of which the nervous system was submitted to thorough examination. Since the only morbid change was an atrophy and disappearance (an abiotrophy) of the large cells of the *globus pallidus*, he isolated the juvenile type from the larger syndrome of paralysis agitans and outlined a syndrome for the *globus pallidus*. The basis of Hunt's argument was that the *globus pallidus* was not only older phylogenetically than the *putamen* and *nucleus caudatus*, but contained cells differing in kind and function: thus, the cells of the former were large and motor, those of the latter small and inhibitory or coördinating. Paralysis of either would produce characteristic and distinctive symptoms. A lesion of the *putamen* and *nucleus caudatus* would be followed by the phenomena of spastic paralysis; a lesion of the *globus pallidus* by the phenomena of paralysis agitans in pure form, *viz.*, the paralysis of certain automatic and associated movements, along with rigidity and tremor. Referring to other known syndromes of the *corpus striatum*, it was pointed out that Vogt's syndrome, characterized by spastic diplegia, with double athetosis and pseudo-bulbar palsy, depended on a lesion of the *caudate nucleus* and *putamen*; Wilson's syndrome, characterized by rigidity, tremor, dysarthria and in some cases spasms and athetoid movements, on progressive degeneration of the whole *nucleus lentiformis*; while the symptoms of Huntingdon's chorea appeared to be due to atrophy of the small cells in the *nucleus caudatus* and *putamen*.

### (96) Family Spastic Paralysis.

Rhein (*Journ. Nerv. and Ment. Dis.*, August, 1916) reported three cases of a comparatively rare type of family spastic disease, namely, spastic diplegia. Three children in the family, aged 6, 8 and 12 years, respectively, were affected; another child aged 14 years had died of the same disease, while another aged 4 years had as yet escaped. The family history was negative, syphilis could be excluded, and the course of the affection was as follows:—After a normal birth and infancy, each affected child, at about the age of 5 years, developed a progressive and pure spasticity of the legs, greatly impairing locomotion and associated with increased knee jerks, ankle clonus and the Babinski phenomenon; followed later by a similar but slighter affection of the arms, and by inability to protrude the tongue, impairment of speech and mental deterioration. The literature on the subject was discussed at some length, and it was shown that there were all forms of transition between the family type of spastic paraplegia, family amyotrophic lateral sclerosis, family cerebral diplegia and family multiple sclerosis, but that these were really a series in which the dominant feature, namely, spasticity and contraction of the limbs, was associated with varying signs and symptoms. It was further indicated that the pathology of the disease was not established.

### (97) Sensory Loss in Musculo-spiral Paralysis.

The area of sensory loss after a lesion of the musculo-spiral nerve is variable, and therefore still a matter of controversy. Renfrew White (*Journ. Royal Army Med. Corps.*, September, 1916), from a study of six cases of injury, points out that the explanation of this variability may be in the fact that the area of skin "anatomically" associated in the mind with the radial nerve is really jointly supplied by at least two and sometimes by three different nerves—the radial, the musculo-cutaneous (posterior division) and sometimes also twigs of the inferior external cutaneous branch of the musculo-spiral. Section of one of these nerves alone is insufficient to cause sensory loss in the area. Moreover, there are variations in the extent of the respective epicritic and protopathic fields, because the proportion between the number of fibres subserving these forms of sensibility is not the same in each of the three paths by which such fibres might pass to the brachial plexus.

# British Medical Association News.

## MEDICO-POLITICAL.

A meeting of the Queensland Branch was held at the B.M.A. Rooms, Adelaide Street, Brisbane, on March 2, 1917, Dr. W. N. Robertson, the President, in the chair.

The President welcomed Lieutenant-Colonel D. G. Croll and Captain E. Russell on their return from France. He announced that Dr. Graham Brown has also returned from Europe.

On the motion that the minutes of the meetings of November 3, 1916, December 15, 1916, January 12, 1917, and February 2, 1917, be confirmed, Dr. G. Comyn pointed out that his remarks anent the expulsion of a member were not included. He had protested against an article published in *The Medical Journal of Australia*, which, in dealing with this matter, had contained no reference to his objection to the expulsion of the member which had been expressed at a general meeting. The minutes were confirmed.

The President read a letter which had been received from the Queensland War Council concerning the employment of returned soldiers as chauffeurs. He asked members who required chauffeurs to write to the Secretary of the State War Council.

The President drew the attention of the members to the new bookcase, which was much admired.

The President called upon Lieutenant-Colonel D. G. Croll to address the members. Lieutenant-Colonel Croll wished to speak concerning the feeling of the men on active service abroad concerning their practices.

Lieutenant-Colonel D. G. Croll said that it was a pleasure for him to have an opportunity of saying a few words. Over two years before it had been stated at a general meeting of the Branch that the practices of those who had gone to the front would be protected. The men away at the war seemed to doubt whether this would be carried out, notwithstanding the fact that the men at home thought that what could be done was being done. He suggested that if they could let the men on active service know what was being done their feeling would be relieved. In his opinion, practitioners should not move into a district where they might do harm to the practices of those absent on military duty, unless they had the consent of the Branch. In the next place, he referred to men who had recently completed their University and hospital training. These men were labouring under the impression that if they went to the war they would not have an opportunity of starting in practice on their return. The Branch Council might be in a position to tender advice in cases of this kind, if they were notified of their existence. He held that the status of the men who had been left in charge of practices should be made clearer. A number of men had been at the war for over two years, and had become stale. They had lost interest in their work, but had no opportunity of getting back. Medical men were not leaving Brisbane as freely as they were leaving the country districts, probably because they thought that they practices would not be safe. If it were possible to arrange an exchange between the men at the front and those in the State much good would be effected.

The President said that he was very glad to have heard Lieutenant-Colonel Croll speak. He had a list of names of the men who had started practice in Brisbane since the beginning of the war. He enumerated the circumstances under which each man had started practice. He was glad to have been able to explain these circumstances, and to prove that men were not jumping the practices of those away at the front. He was quite sure that the members would keep their promise in regard to giving up the patients of the men who had been away after their return. In regard to the proposal concerning exchanges, he pointed out that it would be necessary to be in possession of the knowledge of all the facts before an exchange could be arranged. His impression was that there were still a few men in the State who could go on active service. There were practically no men who had started in practice in Brisbane whose work would interfere with that of those away at the front. In dealing with the general questions involved, Dr. Robertson pointed out that while military requirements should take precedence to civil requirements, the hospitals would have to be considered. He would be glad if the men at the front would be informed of the real position.

Dr. Herbert J. Stewart said that in the early days of the war it had been difficult to obtain the services of a locum tenens. Many men had been compelled to leave their practices without a locum tenens. At first the term of service was a period of twelve months, but later on this was altered into the duration of the war. On his return from the front only one practitioner had handed to him a share of the proceeds of his practice. The public were largely to blame. He had no doubt that men would advise patients to return to their old medical attendants on their return to practice.

Captain E. Russell pointed out that many men who had been away for some time would wish to be relieved. Some of the men had told him when he was abroad that they had not received any return from their practices since they had been away.

Dr. Graham Brown asked whether it would not be possible for them to have an arrangement like the one in force in England. The men signed on for twelve months, and were then free to return to their practices for a time; they returned to the front later if they felt inclined. He considered that it would be advisable to tell the men at the front that they at home were trying to relieve them.

The President pointed out that a committee had been formed in each State to assess which men could best be spared from civil practice; but owing to the failure of the referendum these committees had no longer any power. A little more could be done in Brisbane; but Queensland was such a scattered place that it was difficult to see how the position could be improved. He promised to bring the matter up for discussion at the meeting of the Federal Committee which would be held within a short time.

Lieutenant-Colonel D. G. Croll said that it had not been his intention to criticize, but merely to voice the views of the men at the other side. He moved:

> That a letter be written to each man at the front, explaining what is being done to conserve his interests, and that men who have not yet commenced practice be asked what they propose to do on their return, so that the Branch may be able to advise and help them.

Dr. Herbert J. Stewart seconded the motion, which was carried unanimously.

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A special meeting of the Victorian Branch was held at the Out-Patients' Department of the St. Vincent's Hospital, Fitzroy, on March 7, 1917, Professor R. J. A. Berry, the President, in the chair.

In the absence of Dr. Leon Jona, who was occupied on military service, Dr. R. L. McAdam moved:

> That Rule 5 be amended as follows: Delete the words "The ballot paper shall have a perforated slip," etc., down to the end of the rule, and substitute therefor "This ballot paper shall be accompanied by a form of declaration and two envelopes, marked respectively 'Ballot Paper' and 'Secretary, British Medical Association, East Melbourne.' The ballot paper must be sealed in the envelope provided and enclosed in the envelope addressed to the Secretary, together with the declaration duty signed. This must be returned so as to reach the Secretary not later than 8 o'clock p.m. on the day preceding the Annual Meeting. After that hour the two scrutineers, who shall have been appointed at the November monthly meeting, shall open the outer envelope. If the declaration shall have been duly signed, the envelope containing the ballot paper shall be placed in the ballot box. After all the declarations have been examined the scrutineers shall ascertain the result of the election and report to the Annual Meeting."

Dr. McAdam explained that the object of the amendment was to secure secrecy of the ballot, which was not the case under the existing rule. The motion was seconded by J. W. Dunbar Hooper and was carried unanimously.

Dr. Allen Robertson moved the following addition to the Rules:

Any member, other than an *ex officio* member of a representative of a country Division, absenting himself from more than three (3) consecutive meetings of the Council without permission of the Council shall thereby vacate his seat.

The motion was seconded by Dr. Norman McArthur.

Dr. J. F. Wilkinson contended that the attendances at the Council meeting were very good, and that the members did their best to attend. He could see no necessity for the provision. The Council met twice a month, and it was desirable to have on the Council members of the profession who were so busy that they could not be expected to attend every meeting. These members would attend when there was a particular reason for their presence. He considered that it was sufficient to leave it to the members to judge at the Annual Meeting whether any member should be re-elected. The number of attendances at the Council and Committee meetings was published in the report.

Dr. Norman McArthur held that the proposed rule was not a penalty clause. It was only a matter of courtesy to the Council for a member to ask for leave of absence if he could not attend. The rule was in operation in many business concerns.

Dr. R. L. McAdam stated that he had not heard of any complaints that members had not turned up at the meetings of the Council. From his experience of other bodies, he could say that the members of the Council of the Victorian Branch were exemplary in their attendance. They could trust the honour of members to attend as often as they could.

Mr. G. A. Syme asked the members to vote against the motion. He said that he had been connected with the Committee of the Medical Society and with the Council of the Victorian Branch longer than any other member present, and he could see no reason for the proposed change. One or two of the members of the Council came when their assistance was required, and were very useful members. It could not be expected of them to attend to routine business twice a month, and he did not think that they should be called upon to explain why they were away from the meetings.

The motion was put to the meeting and was lost.

The President announced that the Director-General of Medical Services had offered the Branch facilities to hold a clinical meeting at Langwarrin Camp on Saturday, April 14, 1917, and that the offer had been accepted by the Council. He expressed the hope that all members with motor cars would endeavour to attend the meeting. If they would communicate with the Secretary stating how many extra passengers they were willing to take in their cars, it would be esteemed a favour. The road was good to within walking distance of the camp. He informed those who preferred to travel by rail that a train left Melbourne at 1.30 p.m., and a return train left Langwarrin at 7.30 p.m. He trusted that members would make it their business to attend.

Dr. D. Rosenberg said that he had learnt that it had been decided to reopen negotiations with the Friendly Societies. He had been informed that there was a spirit of compromise abroad, and that the Council would be content with part of the Model Lodge Agreement. It was said that the Lodges were keeping men absent at the war financial on the books. This was a point used in extenuation. He had read in the *Argus* of June 1, 1916, in an article headed "The A.N.A. and the War," that in spite of an extra expenditure of £72,000 a year in concessions to members, the Association managed to save £2,500 a month, and that it had £500,000 to its credit. There was therefore no need to shed tears in their case. In regard to the Irish National Foresters, he had learnt from an article in the *Age* of March 6, 1917, that they had a surplus of £13,053. There was no sign of any sacrifice there. Those who had scruples concerning the advisability of reopening negotiations in war time should read a note published in the weekly edition of the *Times* of January 5, 1917, to the following effect: "The Newcastle Division of the British Medical Association had decided to increase medical fees from 15% to 20%, owing to the increased cost of living, drugs, servants, etc." He asked the members to note that the increase had been decided on in England, and in time of war. As a last piece of evidence in favour of no compromise, he read extracts from a letter from the Honorary Secretary of the New South Wales Branch, which had been written in reply to a letter he had addressed in his capacity as Honorary Secretary of the Richmond Division. Dr. Todd had written: "May I take the opportunity of saying that it is sincerely hoped by members in New South Wales that no proposition will be entertained by the members anywhere in Victoria for any lower rates or less advantageous terms than those operating in New South Wales. The battle has been won to that extent in New South Wales, not only for this State, but for every part of Australia. I shall be glad to hear from you how your Division progresses in the matter, and if you think I can help you in any way, please let me know." Dr. Rosenberg hoped that this would be the last word they would hear of compromise.

The President said that the Council had given and would continue to give earnest and grave consideration to the matter under discussion. He could assure Dr. Rosenberg that neither he nor any other member of the Council had made use of the term "compromise" in the discussion of the matter of reopening negotiations with the Friendly Societies.

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Henry Vicars Gillies, M.B, Univ. Sydney, of the South Sydney Hospital, has been nominated for election as a member of the New South Wales Branch.

## Medical Societies.

(Affiliated with the British Medical Association.)

### CENTRAL SOUTHERN MEDICAL ASSOCIATION.

The annual meeting of the Central Southern Medical Association (New South Wales) was held at the Commercial Hotel, Goulburn, on February 23, 1917, Dr. P. Blackall, the President in the chair.

The following were elected office-bearers and members of the Committee for the year 1917:—

*President*: Dr. W. A. H. Burkitt.
*Vice-President*: Dr. A. G. H. Colquhoun.
*Honorary Secretary*: Dr. G. A. Buchanan.
*Members of the Committee*: Drs. P. Blackall, L. B. H. Conroy, J. English, D. T. Harbison, C. A. Hogg, R. D. McMaster and S. W. Morton.

The following motions were passed:—

1. That this Association considers that all of its members should be requested to apply for a commission in the Australian Army Medical Corps Reserve.
2. That no member of this Association be allowed to commence visiting an outlying centre at regular intervals without first obtaining the consent of the Committee of the Association.

Dr. G. A. Buchanan was elected delegate for 1917, and Dr. W. A. H. Burkitt was elected representative of the Association to attend the quarterly meetings of the New South Wales Branch.

### VICTORIAN MEDICAL BENEVOLENT ASSOCIATION.

The annual meeting of the Victorian Medical Benevolent Association was held in Melbourne on February 23, 1917, Dr. J. P. Ryan, the President, in the chair.

The following were elected office-bearers and members of the committee:—

*President*: Dr. J. P. Ryan.
*Secretary*: Dr. E. L. Gault.
*Treasurer*: Dr. G. Cuscaden.
*Members of the Committee*: Dr. G. A. Syme, Dr. E. Ryan, Dr. W. Moore, Dr. J. Talbot Brett and Dr. F. Hobill Cole.

The report of the work of the year was read by the Secretary, and was adopted.

The balance sheet was received and adopted.

#### Annual Report.

The last annual meeting was held on March 22, 1916, when the following officers were elected:—

*President*: Dr. J. P. Ryan.
*Secretary*: Dr. E. L. Gault.
*Treasurer*: Dr. G. Cuscaden.
*Members of Committee*: Drs. E. Ryan, G. A. Syme, W. Moore, F. Hobill Cole and G. T. Brett.

The calls on the Association during the past year have been very few, a fact which may be taken as indicating the sound financial position of the medical profession in Victoria. It can hardly be doubted, however, that the loss of life occasioned by the war will impose on the Association in the near future much heavier burdens than it has borne hitherto. In these circumstances the Committee feels it a fitting thing to ask for general support of the Association by the profession. The annual subscription has been reduced to the small sum of 5s., which it is believed will be grudged by no one in maintaining an Association of such actual and potential value to the profession.

## VICTORIAN MEDICAL BENEVOLENT ASSOCIATION.

### Statement of Receipts and Disbursements 1st January to 31st December, 1916.

#### RECEIPTS.

| | £ s. d. | £ s. d. |
|---|---|---|
| To Balance Commercial Bank, 1st January, 1916 | 159 12 5 | |
| „ Balance State Savings Bank | 46 17 5 | |
| | | 206 9 10 |
| „ Fixed Deposits Matured— | | |
| National Bank | 576 18 11 | |
| Bank of Victoria | 162 0 0 | |
| | | 738 18 11 |
| „ Interest Received— | | |
| Commonwealth War Loan | 27 0 0 | |
| Victorian Government Debentures | 16 0 0 | |
| Victorian Government Stock | 30 0 0 | |
| National Bank | 46 1 7 | |
| Commercial Bank | 14 16 10 | |
| State Savings Bank | 1 12 2 | |
| Bank of Victoria | 12 19 2 | |
| | | 148 9 9 |
| „ Dividends— | | |
| Australian Deposit and Mortgage Bank | | 46 13 8 |
| | | £1,140 12 2 |

#### DISBURSEMENTS.

| | £ s. d. | £ s. d. |
|---|---|---|
| By Sundry Grants, as per Statement | | 38 0 0 |
| „ Bank Charges, Collection of Interest, etc. | | 1 2 6 |
| „ Audit Fee | | 2 2 0 |
| „ Amounts Placed at Fixed Deposits— Bank of Victoria | | 174 19 2 |
| „ Investments— Commonwealth War Loan | | 600 0 0 |
| „ Balance at Commercial Bank at 31st December, 1916 | £275 18 11 | |
| „ Balance at State Savings Bank at 31st December, 1916 | 48 9 7 | |
| | | 324 8 6 |
| | | £1,140 12 2 |

### Statement of Funds and Investments at 31st December, 1916.

| | £ s. d. | £ s. d. |
|---|---|---|
| Australian Deposit and Mortgage Bank Shares | | 726 5 0 |
| Commonwealth Treasury Bonds | | 600 0 0 |
| Victorian Government 4% Debentures, due 1923 | | 400 0 0 |
| Victorian Government 3% Stock | | 500 0 0 |
| Deposit Receipts | | 1,192 11 11 |
| Current Accounts— | | |
| Commercial Bank of Australia, Ltd. | £275 18 11 | |
| State Savings Bank | 48 9 7 | |
| | | 324 8 6 |
| | | £3,743 5 5 |

Audited and found correct,
R. H. SHACKELL,
Auditor.

GEO. CUSCADEN,
Hon. Treasurer.

Melbourne,
9th February, 1917.

## Naval and Military.

The 279th list of casualties, which was published on March 15, 1917, contains 942 names. There is no medical man mentioned in the list. In the 280th list, issued on March 17, 1917, it is announced that Captain E. A. Sanbrook has been wounded but is remaining on duty.

* * * * *

We regret to record the death from wounds received in action of Lieutenant-Colonel M. L. Williams.

* * * * *

Those who have visited the Lister Institute, or have worked there, during the past few years will learn with great regret of the death from epidemic cerebro-spinal meningitis of "Syd" Rowland. We are informed that he was working in France on the carrier problem, and was holding a commission as Major in the Royal Army Medical Corps.

* * * * *

Surgeon Francis Henry Vivian Voss has been promoted to the rank of Staff-Surgeon of the Citizen Naval Forces of the Commonwealth, Royal Australian Naval Reserve. The gazettal is dated September 16, 1916.

* * * * *

The following announcements of appointments to the Australian Imperial Force have been published in the *Commonwealth of Australia Gazette* of March 15, 1917:—

**Australian Imperial Force.**
Army Medical Corps.

To be Lieutenant-Colonel (with Pay of Major)—
Lieutenant-Colonel H. A. Embling, V.D., Unattached List. Dated 6th February, 1917.

To be Captains—
Captain (Provisional) T. R. E. Davis, Australian Army Medical Corps. Dated 16th February, 1917.
Captain F. L. Bignell, Australian Army Medical Corps. Dated 6th September, 1916. (This cancels the notification respecting the date of appointment of this officer which appeared on page 2947 of *Commonwealth of Australia Gazette*, No. 144, of 12th October, 1910.)
Honorary Captain E. H. Lewis, Australian Army Medical Corps Reserve. Dated 20th January, 1917.
Honorary Captain R. G. Burnard, Australian Army Medical Corps Reserve. Dated 14th August, 1916.
Honorary Captain W. J. W. Close, Australian Army Medical Corps Reserve. Dated 20th January

1915. (This cancels the notification respecting the date of appointment of this officer which appeared on page 660 of *Commonwealth of Australia Gazette*, No. 29, of 10th April, 1915.)

Honorary Captain L. M. Pigott, Australian Army Medical Corps Reserve. Dated 14th December, 1916.

Honorary Captain R. A. R. Green, Australian Army Medical Corps Reserve. Dated 8th February, 1917.

Honorary Captain E. W. F. Dolman, Australian Army Medical Corps Reserve. Dated 1st January, 1917.

Honorary Captains C. Duguid, R. W. Lawrence and J. F. Patrick, Australian Army Medical Corps Reserve. Dated 5th February, 1917.

Honorary Captain R. M. Thomson, Australian Army Medical Corps Reserve. Dated 13th December, 1916.

Honorary Captain H. S. Walsh, Australian Army Medical Corps Reserve. Dated 23rd December, 1916.

Honorary Captain A. R. Waterhouse, Australian Army Medical Corps Reserve. Dated 15th December, 1916.

Captain S. H. Seccombe, Unattached List. Dated 1st March, 1917.

Lieutenant (Provisional) E. W. Frecker, Sydney University Scouts. Dated 19th December, 1916.

Lieutenant (Provisional) H. Leaver, Sydney University Scouts. Dated 18th December, 1916.

Lieutenant (Provisional) R. J. Hunter, 25th (City of Sydney) Infantry. Dated 1st February, 1917.

Horace Pern. Dated 9th July, 1915. (This cancels the notification respecting the date of appointment of this officer which appeared on page 1619 of *Commonwealth of Australia Gazette*, No. 95, of 21st August, 1915.)

William Stuart Hawthorne. Dated 1st October, 1916.

Robert Byram Loosli and Neil McColl. Dated 15th December, 1916.

Cecil Gordon Allen. Dated 18th December, 1916.

Robert Joseph Silverton. Dated 19th December, 1916.

Valentine Neville Buchanan Willis. Dated 1st January, 1917.

Joseph Ringland Anderson. Dated 2nd January, 1917.

Sydney Stewart Shirlow and Carvosso Roy Wiburd. Dated 8th January, 1917.

Percival Frank Manchester. Dated 11th January, 1917.

Leonard Tilsley Baker. Dated 14th January, 1917.

Norbert Henry Bridge. Dated 16th January, 1917.

James Patterson Wilson and William Louther Armstrong. Dated 18th January, 1917.

Mervyn Archdall, Cortis Rawsthorne Hodgson and Henry Dolman. Dated 29th January, 1917.

Francis Clarke Thompson and Clarence Archibald Mitchell. Dated 31st January, 1917.

John William Smith. Dated 1st February, 1917.

Termination of Appointments—

The appointments of the undermentioned officers are terminated from the dates stated opposite names:—

Lieutenant-Colonel C. MacLaurin. 17th January, 1917.

Lieutenant-Colonel W. C. Grey, 17th January, 1917.

Lieutenant-Colonel J. E. F. Stewart. 8th January, 1917.

Major C. Bollen. 8th February, 1917.

Major R. A. P. Waugh. 12th February, 1917.

Major W. T. Newton. 1st March, 1917.

Major S. Kay. 7th February, 1917.

Major A. O. Howse. 18th March, 1917.

Staff-Surgeon E. W. Morris. 21st February, 1917.

Captain K. C. Godfrey. 7th February, 1917.

Captain R. W. Cunningham. 23rd January, 1917.

Captain C. P. W. Dyring. 29th January, 1917.

Captain L. St. V. Welch. 17th January, 1917.

Captain A. B. Bennie. 29th January, 1917.

Captain Q. Ercole. 3rd February, 1917.

Captain T. N. Wright. 10th January, 1917.

Captain A. Rhodes. 24th December, 1916.

Captain L. B. Daly. 14th January, 1917.

Captain J. T. Anderson. 8th January, 1917.

Captain L. H. Hughes. 8th January, 1917.

Captain J. G. Mackay. 1st January, 1917.

Captain J. W. Maskell. 31st January, 1917.

Captain A. E. Arnold. 30th November, 1916. (This cancels the notification respecting the termination of appointment of Captain A. C. Arnold which appeared on page 3467 of *Commonwealth of Australia Gazette*, No. 190, of 21st December, 1916.)

Honorary Major C. Morley. 28th February, 1917.

Honorary Lieutenant F. A. Comins. 31st January, 1917.

To be Major—

Captain A. O. Howse. Dated 10th November, 1916. Head-Quarters, 1st Anzac Corps.

To be Lieutenant-Colonel—

Major A. Graham Butler, D.S.O. Dated 20th November, 1916.

Australian Imperial Force, Administrative Head-Quarters.

To be Major—

Captain (Temporary Major) D. S. Mackenzie. Dated 14th November, 1916.

To be Temporary Major—

Captain A. E. Colvin, from 1st Field Ambulance. Dated 20th November, 1916.

To be Quartermaster and Honorary Lieutenant—

Warrant Officer John Raymond Drummond. Dated 24th November, 1916.

Head-Quarters, 1st Australian Division.

Lieutenant-Colonel (Temporary Colonel) A. H. Sturdee, C.M.G., V.D., relinquished appointment of Assistant Director of Medical Services, and is transferred to England. Dated 20th November, 1916.

Lieutenant-Colonel R. B. Huxtable, from 7th Field Ambulance, to be Assistant Director of Medical Services, and is granted the temporary rank of Colonel whilst holding the appointment. Dated 20th November, 1916.

Head-Quarters, Anzac Mounted Division.

Major A. L. Dawson is granted the temporary rank of Lieutenant-Colonel whilst employed on the Divisional Staff, supernumerary to establishment, for Australian Imperial Force duties. Dated 20th November, 1916.

Head-Quarters, 5th Australian Division.

Lieutenant-Colonel W. W. Hearne, from 2nd Field Ambulance, to be Assistant Director of Medical Services, temporarily, and is granted the temporary rank of Colonel whilst so employed. Dated 20th November, 1916.

1st Australian General Hospital.

To be Temporary Lieutenant-Colonel—

Major B. Quick. Dated 7th November, 1916.

To be Majors—

Captain H. H. D. Turnbull, Captain (Temporary Major) J. T. Tait, and Captain J. A. James. Dated 14th November, 1916.

2nd Australian General Hospital.

To be Majors—

Captain C. N. Finn, Captain T. J. Frizell (from 5th Field Ambulance), and Captain J. C. Campbell. Dated 14th November, 1916.

3rd Australian General Hospital (Kitchener War Hospital).

To be Majors—

Captain E. W. Gutteridge, from No. 3 Australian Command Depôt. Dated 14th November, 1916.

Captain (Temporary Major) K. S. Cross to retain the temporary rank of Major whilst holding the appointment of Registrar. Dated 14th November, 1916.

3rd Australian Auxiliary Hospital (1st Australian Stationary Hospital).

To be Majors—

Captain (Temporary Major) F. N. Le Messurier

and Captain C. Morlet. Dated 14th November, 1916.

2nd Australian Stationary Hospital.

To be Major—

Captain (Temporary Major) W. R. C. Mainwaring. Dated 14th November, 1916.

1st Australian Auxiliary Hospital.

To be Majors—

Captain (Temporary Major) J. S. Verco. Dated 14th November, 1916.

Captain J. A. Smeal is granted the temporary rank of Major whilst holding the appointment of Registrar. Dated 14th November, 1916.

1st Australian Casualty Clearing Station.

To be Major—

Captain H. V. Foxton. Dated 14th November, 1916.

2nd Australian Casualty Clearing Station.

To be Majors—

Captain C. F. Pitcher, from 3rd Australian Auxiliary Hospital (1st Australian Stationary Hospital). Dated 14th November, 1916.

Captain A. S. D. Barton, from 1st Australian Casualty Clearing Station. Dated 14th November, 1916.

1st Light Horse Field Ambulance.

To be Major—

Captain W. W. McLaren. Dated 14th November, 1916.

2nd Light Horse Field Ambulance.

To be Major—

Captain G. E. M. Stuart, from 3rd Light Horse Field Ambulance. Dated 14th November, 1916.

3rd Light Horse Field Ambulance.

To be Major—

Captain M. V. Cave. Dated 14th November, 1916.

2nd Field Ambulance.

To be Major—

Captain D. M. Embleton. Dated 14th November, 1916.

3rd Field Ambulance.

To be Majors—

Captain H. Z. Stephens. Dated 14th November, 1916.

Captain V. W. Savage, from 5th Field Ambulance. Dated 14th November, 1916.

4th Field Ambulance.

To be Lieutenant-Colonel—

Major H. H. B. Follitt, from appointment of Deputy-Assistant Director of Medical Services, 5th Australian Division, and to command. Dated 20th November, 1916.

To be Major—

Captain J. Bentley. Dated 14th November, 1916.

5th Field Ambulance.

To be Major—

Captain C. L. Chapman. Dated 14th November, 1916.

6th Field Ambulance.

To be Lieutenant-Colonel—

Major (Temporary Lieutenant-Colonel) A. H. Moseley. Dated 20th November, 1916.

To be Majors—

Captain (Temporary Major) H. B. Lewers. Dated 14th November, 1916.

Captain C. C. Ross, from 2nd Australian General Hospital. Dated 14th November, 1916.

7th Field Ambulance.

To be Lieutenant-Colonel—

Major J. J. Black, from 14th Field Ambulance, and to command. Dated 20th November, 1916.

To be Major—

Captain W. H. Donald. Dated 14th November, 1916.

8th Field Ambulance.

To be Majors—

Captain (Temporary Major) A. R. Clayton. Dated 14th November, 1916.

Captain (Temporary Major) F. C. Wooster. Dated 14th November, 1916.

Captain (Temporary Major) L. W. Bond, from 2nd Australian General Hospital. Dated 14th November, 1916.

9th Field Ambulance.

To be Majors—

Captain (Temporary Major) E. F. Lind. Dated 14th November, 1916.

Captain (Temporary Major) A. V. Honman. Dated 14th November, 1916.

12th Field Ambulance.

To be Major—

Captain W. M. A. Fletcher. Dated 14th November, 1916.

13th Field Ambulance.

To be Major—

Captain (Temporary Major) B. Ingram. Dated 14th November, 1916.

14th Field Ambulance.

To be Major—

Captain W. C. Sawers. from 3rd Australian Field Ambulance. Dated 14th November, 1916.

15th Field Ambulance.

To be Major—

Captain C. L. S. McIntosh. Dated 14th November, 1916.

Divisional Sanitary Sections.

To be Majors—

Captain (Temporary Major) G. C. Byrne, Divisional Sanitary Officer, 2nd Australian Division. Dated 14th November, 1916.

Captain (Temporary Major) C. Mattei, Divisional Sanitary Officer, 5th Australian Division. Dated 14th November, 1916.

Captain I. M. Bourke, Divisional Sanitary Officer, 1st Australian Division. Dated 14th November, 1916.

Regimental Medical Officers.

To be Majors—

Captain G. E. Marolli, 5th Divisional Ammunition Column. Dated 14th November, 1916.

Captain R. W. W. Walsh, Australian Siege Batteries. Dated 14th November, 1916.

Captain H. C. Nott, 3rd Infantry Training Battalian. Dated 14th November, 1916.

Captain J. R. McN. Bieth, 6th Light Horse Regiment. Dated 14th November, 1916.

Captain (temporary Major) B. C. Kennedy, 46th Battalion. Dated 14th November, 1916.

Captain (temporary Major) L. W. Jeffries, 50th Battalion. Dated 14th November, 1916.

Captain (temporary Major) H. H. Woollard, 48th Battalion. Dated 14th November, 1916.

Captain A. Alchorn, 31st Battalion. Dated 14th November, 1916.

Captain F. McIntyre, M.C., 23rd Battalion. Dated 14th November, 1916.

Captain E. Culpin, 28th Battalion. Dated 14th November, 1916.

Army Medical Corps Training Depôt.

To be Major—

Captain M. B. Johnson, and to command. Dated 14th November, 1916.

No. 1 Command Depôt.

To be Major—

Captain V. Benjafield. Dated 14th November, 1916.

No. 2 Command Depôt.

To be Major—

Captain L. O. Betts. Dated 14th November, 1916.

2nd Australian General Hospital.

To be temporary Lieutenant-Colonel—

Major W. G. D. Upjohn. Dated 14th October, 1916.

Captain (temporary Major) L. W. Bond relinquishes temporary rank of Major on ceasing to hold the appointment of Registrar. Dated 10th November, 1916.

1st Field Ambulance.

To be Lieutenant-Colonel—

Major M. L. Williams. Dated 30th October, 1916.

3rd Light Horse Field Ambulance.

To be Lieutenant-Colonel—
Major (temporary Lieutenant-Colonel) W. A. Fraser. Dated 8th November, 1916.

8th Field Ambulance.

To be temporary Majors—
Captain A. R. Clayton. Dated 30th October, 1916.
Captain F. C. Wooster. Dated 30th October, 1916.

12th Field Ambulance.

To be Lieutenant-Colonel—
Major J. A. Newell. Dated 30th October, 1916.

The following announcements concerning appointments, changes, etc., have been published in the same issue of the *Commonwealth of Australia Gazette*:—

**Australian Army Medical Corps Reserve.**

1st Military District.

Harold South and Patrick James Kelly to be Honorary Captains. Dated 26th February, 1917.

The appointment of Honorary Lieutenant Selby De Tree is terminated. Dated 6th December, 1916. This cancels the notification respecting the date of termination of appointment of this officer which appeared on page 3471 of *Commonwealth of Australia Gazette*, No. 190, of 28th December, 1916.

2nd Military District.

Charles William Bruce to be Honorary Captain. Dated 6th April, 1916.

John Mackenzie to be Honorary Captain. Dated 20th November, 1916.

Thomas Lawrence Pawlett to be Honorary Captain. Dated 28th November, 1916.

Linsday Alexander Dey, George Burnett Mander Jones, Frederick Martindale Blackwood, David Guthrie Hunter, John MacMaster, and Chisholm Ross to be Honorary Captains. Dated 29th November, 1916.

William Ritchie to be Honorary Captain. Dated 1st December, 1916.

Percy Murray Curtis to be Honorary Captain. Dated 6th December, 1916.

Henry William Armit to be Honorary Captain. Dated 8th December, 1916.

Ernest Arthur D'Ombrain, Daniel Kelly, George Meston Duncan, Harry Herbert Lee, Arthur Styles Vallack, William Cunningham Denniston, William Henry O'Neill, and George Arbuthnot Van Someren to be Honorary Captains. Dated 22nd December, 1916.

Harold Selwyn Capper and Frederic Charles Bruce Hittmann to be Honorary Captains. Dated 23rd December, 1916.

Henry Joseph Harris to be Honorary Captain. Dated 27th December, 1916.

Harry Glennie Holmes and Arthur Chenery to be Honorary Captains. Dated 1st January, 1917.

Frank Septimus Tange to be Honorary Captain Dated 3rd January, 1917.

Phillip Sydney Jones to be Honorary Captain. Dated 10th January, 1917.

Samuel Joseph Henry Moreau, William Henry Elworthy, Frederick Joseph Richard Cade, and Reginald William Harrison Maffey to be Honorary Captains. Dated 16th January, 1917.

Leslie Harold Foy, Edward Harvey Bird Nickoll, Hugh Busby, and William Prichard Bassett to be Honorary Captains. Dated 29th January, 1917.

Walter Guy Shellshear and Alexander John Park to be Honorary Captains. Dated 2nd February, 1917.

Percy Glover Cooley and John Andrew Leslie Wallace to be Honorary Captains. Dated 5th February, 1917.

William Digan Langton to be Honorary Captain. Dated 14th February, 1917.

Henry Leighton Jones and Duncan Buchanan to be Honorary Captains. Dated 15th February, 1917.

Henry Budd Hetherington, Evan Tudor Jones, Herbert Ernest Lee, Humphrey Bede Oxenham, James Miles Sterling Levis, Charles Henry Northcott, Francis Cecil Rogers, George Bowen Thomas, Thomas Graham Campbell, George Allan, James Eric Vernon Barling, and William Seymour Brooks to be Honorary Captains. Dated 17th February, 1917.

Alban Albury Maloney to be Honorary Lieutenant. Dated 19th June, 1916.

Honorary Captain H. W. J. Marks to be Honorary Major. Dated 1st January, 1917.

3rd Military District.

Thomas Cherry to be Honorary Major. Dated 7th February, 1917.

Roland Ravenscroft Wettenhall to be Honorary Captain. Dated 24th October, 1914.

Clive Travers Stephen to be Honorary Captain. Dated 17th March, 1915.

Hugh Campbell Wilson, Vernon George Webb, Henry Albert Connolly, Harold David Downing, and Frank Robert Legge to be Honorary Captains. Dated 15th February, 1917.

Honorary Captain C. E. King to be transferred to Australian Army Medical Corps Reserve, 4th Military District, with seniority as from date of transfer. Dated 1st February, 1917.

Honorary Captain A. J. Hamilton to be transferred to Australian Army Medical Corps Reserve, 6th Military District, with seniority as from date of transfer. Dated 15th January, 1917.

4th Military District.

Honorary Captain C. E. King to be transferred from Australian Army Medical Corps Reserve, 3rd Military District, with seniority as from date of transfer. Dated 1st February, 1917.

5th Military District.

Patrick Michael O'Meara to be Honorary Major. Dated 27th July, 1915.

John Kenny to be Honorary Captain. Dated 20th January, 1915. This cancels the notification respecting the date of appointment of this officer which appeared on page 666 of *Commonwealth of Australia Gazette*, No. 29, of 10th April, 1915.

The resignation of Honorary Lieutenant A. H. Dick of his commission is accepted. Dated 6th January, 1917.

6th Military District.

David Smith Henderson to be Honorary Captain. Dated 1st February, 1917.

Honorary Captain A. J. Hamilton to be transferred from Australian Army Medical Corps Reserve, 3rd Military District, with seniority as from date of transfer. Dated 15th January, 1917.

The resignation of Captain J. W. Maskell of his provisional appointment is accepted. Dated 15th February, 1917.

Honorary Captain W. de W. Henty, Australian Army Medical Corps Reserve, has been granted temporary rank of Major, with pay of rank at rate prescribed by Financial and Allowance Regulation 340, whilst holding position as Registrar, No. 11 Australian General Hospital. Dated 17th January, 1917.

Australian Army Medical Corps—

Honorary Captain A. L. Kerris is transferred from Australian Army Medical Corps Reserve, and to be Officer Commanding, Contagious Diseases Hospital, with temporary rank and pay of Major, at rate prescribed by Financial and Allowance Regulation 340. Dated 12th February, 1917.

The appointment of Honorary Major W. McMurray as Officer Commanding Contagious Diseases Hospital, with temporary rank of Lieutenant-

Colonel and pay as for rank of Major, is terminated. Dated 11th February, 1917.

**Australian Army Service Corps.**

Captain A. W. Hill to be Senior Medical Officer, Australian Imperial Force Camp, with temporary rank of Lieutenant-Colonel and pay as for rank of Major, at rate prescribed by Financial and Allowance Regulation 340, whilst holding such appointment. Dated 1st January, 1917.

The appointment of Captain A. W. Hill as Principal Medical Officer, District Head-Quarters Camp Staff, with temporary rank of Lieutenant-Colonel, is terminated. Dated 31st December, 1916.

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The following are a few abstracts from private letters written by men at the front to their relatives and friends in Australia. We invite our readers to emulate the example of the correspondents who have kindly placed these abstracts at our disposal, and to send us excerpts from letters from men on active service:—

Everyone is digusted with the "No" vote, and no one speaks about it now. I am sure most of the fellows here did not understand the real meaning of the whole show. If another vote were taken, I feel sure it would be a different tale. The English papers let Australia down very lightly.

* * * * *

Most of the casualty work comes at night; it is very difficult to find one's way about in the dark.

* * * * *

The men's feet are a source of endless trouble. They get chilblains, chilled feet, trench feet, corns and blisters, which promptly go septic. With constant moving about they will not heal. You will be surprised at the number one gets in a battalion on its first march on coming out of the line. The stretcher-bearers are having a pretty rough passage. They are wonderful fellows, always cheerful, and will do anything at any time or place if it will ease or help a wounded man.

* * * * *

As far as possible if medical officers apply to return to Australia after two years' service they are permitted to go.

* * * * *

Life in this part of the world is very different from that on the Peninsula. The slush and mud are not too pleasant. However, one spends a good part of the time away from the line, and always gets good food, so there is really not very much to complain of, but we are always grumbling as a matter of form.

* * * * *

For extension of fractures, etc., one of the surgeons here uses glue to apply gauze bandages to the skin. It is very effective, and much better than plaster.

Glue, 50 parts
Water, 50 parts
Glycerine, 1 part
Calcium lactate, 1 part
Thymol, 1 part

It is melted in a water bath and applied like ordinary glue.

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# Public Health.

## THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending March 10, 1917:—

| | Metropolitan Combined District. Cs. | Dths. | Hunter River Combined District. Cs. | Dths. | Rest of State. Cs. | Dths. | Total. Cs. | Dths. |
|---|---|---|---|---|---|---|---|---|
| Enteric Fever | 15 | 1 | 1 | 0 | 19 | 1 | 35 | 2 |
| Scarlatina | 36 | 0 | 1 | 0 | 29 | 0 | 66 | 0 |
| Diphtheria | 62 | 1 | 3 | 0 | 69 | 3 | 134 | 4 |
| C'bro-Sp'l Menin. | 3 | 1 | 0 | 0 | 6 | 1 | 9 | 2 |
| *Pul. Tuberculosis | 33 | 7 | 1 | 0 | 0 | 0 | 34 | 7 |

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

## THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending March 11, 1917:—

| | Metropolitan. Cs. | Dths. | Rest of State. Cs. | Dths. | Total. Cs. | Dths. |
|---|---|---|---|---|---|---|
| Diphtheria | 40 | 2 | 32 | 1 | 72 | 3 |
| Scarlatina | 15 | 0 | 14 | 0 | 29 | 0 |
| Enteric Fever | 5 | 0 | 19 | 2 | 24 | 2 |
| Pulmonary Tuberculosis | 22 | 7 | 11 | 5 | 33 | 12 |
| C'bro-Spinal Meningitis | 0 | — | 1 | — | 1 | — |

## INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending March 10, 1917:—

| Disease. | No. of Cases. |
|---|---|
| Scarlatina | 13 |
| Enteric Fever | 27 |
| Diphtheria | 46 |
| Pulmonary Tuberculosis | 6 |
| Erysipelas | 1 |
| Puerperal Fever | 1 |

## THE HEALTH OF SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, for the week ending March 3, 1917:—

| | Adelaide. Cs. | Dths. | Rest of State. Cs. | Dths. | Totals. Cs. | Dths. |
|---|---|---|---|---|---|---|
| Pertussis | 4 | 0 | 30 | 0 | 34 | 0 |
| Diphtheria | 1 | 1 | 13 | 0 | 14 | 1 |
| Morbilli | 0 | 0 | 14 | 0 | 14 | 0 |
| Enteric Fever | 1 | 0 | 8 | 1 | 9 | 1 |
| Pulmonary Tuberculosis | 2 | 0 | 7 | 5 | 9 | 5 |
| Scarlatina | 0 | 0 | 2 | 0 | 2 | 0 |
| Erysipelas | 0 | 0 | 1 | 0 | 1 | 0 |

## INFECTIVE DISEASES IN TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the week ending March 10, 1917:—

| Disease. | Hobart. Cases. | Launceston. Cases. | Country. Cases. | Whole State. Cases. |
|---|---|---|---|---|
| Diphtheria | 1 | 5 | 10 | 16 |
| Enteric Fever | 1 | 0 | 7 | 8 |
| Pulmonary Tuberculosis | 2 | 0 | 1 | 3 |
| C'bro-Spinal Meningitis | 1 | 0 | 0 | 1 |

## INFECTIVE DISEASES.

Bulletin No. 4 of the Quarantine Service has been published under the date of February 16, 1917. It contains the following information:—

**Variola.**

The *St. Albans*, which arrived at Thursday Island from Kobe, via Hong Kong, on February 8, 1917, had on board a deck passenger suffering from small-pox. The patient and an attendant were landed at the Quarantine Station, and all the necessary vaccination measures were carried out. The vessel proceeded in quarantine to Townsville, Brisbane and Sydney. She arrived at Sydney on February 16, 1917.

Since the issue of the last report, 134 additional cases of variola have been reported in the Dutch East Indies. There were 36 deaths. A Bill of Health issued at Hong Kong contains information concerning 163 cases, with 122 deaths, during the fortnight ending January 21, 1917. One case and one death from variola were reported in the Straits

Settlements in the period from January 9 and January 15, 1917. There were two cases of varioloid in the Philippine Islands between December 17, 1916, and January 13, 1917.

### Plague.

No fresh report has been received from India regarding the incidence of plague. In Java, news of 70 fresh cases, with 50 deaths, has been received. There were eight cases and eight deaths reported from the Potchefstroom district, in South Africa, between December 21, 1916, and January 7, 1917. One case and one death have been reported in Hong Kong in the week ending December 30, 1916, and one case in the week ending February 6, 1917, in the Straits Settlements.

### Cholera.

Between December 17, 1916, and January 13, 1917, 14 cases of cholera were notified in the Philippine Islands, with seven deaths. A Bill of Health dealing with the period from January 13 and January 27, 1917, from the same place includes reference to four cases and one death. One case has been reported in the Dutch East Indies.

### Typhus Fever.

The following information dealing with the week ending December 29, 1916, has been culled from the United States Public Health Service Reports:—

| Place. | Cases. | Deaths. |
|---|---|---|
| Mexico | 1005 | 1 |
| China | 2 | — |
| Egypt | 1 | — |
| Sweden | 1 | — |
| Greece | — | 11 |
| Colombia | Epidemic | |

### A New Quarantine Station.

A quarantine station has been equipped at Garden Island, Cockburn Sound, Western Australia, and a proclamation has been issued on February 8, 1917, ordering the use of this station for the performance of quarantine of vessels, persons and goods.

We learn that the Faculty of Medicine of the University of Melbourne proposes to discontinue the acceleration of the medical course at the end of the current year.

## Correspondence.

### THE MEDICAL PROFESSION AND FRIENDLY SOCIETIES.

Sir,—I have just read Dr. Rosenberg's letter in your issue of January 27th last, and would like, even at this late date, to say that he has my very warmest approval for the stand he has taken in this matter. Dr. Rosenberg is perfectly right; it is apathy and nothing else that is at the root of the trouble. If he could only get the doctors to wake up and take notice the thing would be done; it only wants concerted action. To this end I would suggest that he enlist the doctor's wives and leave the stirring up to them. He will soon find that he has all the following and support he asks for, and the attendances at the meetings will go up 50%.

If Dr. Rosenberg will allow me, I will enlist now under his banner, and will do my best to stir up my own particular piece of apathy; and who knows? a little leaven may leaven the whole lump.

Yours, etc.,

DOCTOR'S WIFE.

March 12, 1917.

Sir,—It was with interest that I read the letter of "Country Med." *re* lodge practice.

In our district, in South Australia, the conditions are even worse—10/- per annum and doctor to provide medicine and attendance within a radius of three miles.

On the lodge lists there are squatters, some of the leading personalities in the Liberal Union, boasting of incomes from £10,000 to £20,000 per annum and more, who take advantage of lodge treatment. One of these gentry refused to pay for the anæsthetic given to one of his children by a brother practitioner because his child was on the lodge! Individually, it is impossible to fight these persons on these matters. A communication to the local Branch requesting information, if anything was being done by the Branch about lodge practice, was not even acknowledged. Possibly an oversight or non-delivery of letter!

At the present time, when doctors in particular are making personal sacrifices for patriotic reasons, some of the less fortunate, financially, are compelled to hesitate before doing so and consider ways and means.

The question one is inclined to ask is: Of what use is the Medical Association to the average country practitioner? The only thing of value to him apparently is the very occasional original ideas to be found in the medical journals and a few news items. If there is no organization for mutual improvement, does the Association justify its existence as far as the country practitioner is concerned?

Yours, etc.,

"ANOTHER COUNTRY MED."

Sir,—Will you allow me to make a few remarks on two apparently unconnected but really allied subjects of discussion in late journals? As regards military service: When one returns from service abroad and sees numbers of men of military age enjoying enhanced profits due to the absence of fellow practitioners, and when one finds a fellow member of the B.M.A. squatting within 300 yards of one's door plate, is it not time to quit? (personal experience). As to clubs: "Graduate" has struck the right note. There ought to be no room for clubs in Australia. It is idle discussing whether 3/4½ or £2/3/4½ is the right payment for medical attendance on a whole family. Both figures are on the same plane; that is to say, both are absurd. They can be worth no man's while, unless he has enormous numbers on his list, gives the most perfunctory attendance, and sends his "troublesome" cases into the hospitals. This latter procedure accounts for the Sydney hospitals swarming with cases of no hospital value to the exclusion of urgent and genuine cases. There are club doctors whose average fee per attendance does not amount to 2½d. Let us attend the poor for nothing, or for what they can afford to pay, and let our battle cry be down with the clubs! If this were the case, some of our club-doctors would find that they could easily be "spared" for military service, for their consulting rooms would not then look quite so like picture shows as they do now.

Yours, etc.,

"VERITAS."

## Proceedings of the Australian Medical Boards.

### NEW SOUTH WALES.

The following have been registered under the provisions of "The Medical Act, 1912 and 1915," as duly qualified medical practitioners:—

Braye, Helen Margaret Inglis, M.B., Ch.M., 1916, Univ. Sydney.

Veech, Bryan Aloysius, M.B., Ch.M., 1916, Univ. Sydney.

Taylor, Charles James, M.B., Ch.M., 1900, Univ. Sydney.

### VICTORIA.

The following have been registered under the provisions of Part 1 of the "Medical Act, 1915," as duly qualified medical practitioners:—

Macnamara, Leslie Osborne, C/o. W. Ramsay, 80 Swanston Street, Melbourne, M.B., Sydney, 1914.

Donnelly, Thomas Hugh, 4 Lyons Street, Ballaarat, M.B., Ch.B., Adelaide, 1911.

### QUEENSLAND.

The following gentleman has been registered under the provisions of the "Medical Act of 1867" as a duly qualified medical practitioner:—

Richards, Russell William, Rockhampton, M.B., Ch.M., Univ. Sydney, 1916.

Additional Registration—

Francis, Richard Powell Waugh, Brisbane, Ch.M., Univ. Sydney. 1916.

## Medical Appointments.

Dr. Malcolm Gillies, a member of the Council of the town of Bowen, Queensland, has been appointed a member of the Bowen-Proserpine Tramway Joint Board.

During the absence of the Commissioner of Public Health, Queensland, Dr. John Erskine Thomson has been appointed Deputy Commissioner. The appointment is to date from March 8, 1917.

Under the provisions of the Mental Defectives Act, 1913, Dr. Helen Mary Mayo has been appointed an Official Visitor to the Mental Hospital, Parkside, South Australia, during the temporary absence from the State of Dr. Phoebe Chapple.

His Excellency the Governor-General has approved of the appointment of Dr. J. M. Allan as Acting Quarantine Officer, Cossack, Western Australia, during the absence of Dr. J. Maunsell.

We note that Dr. J. E. Thomson, of the Department of Public Health, Brisbane, has been appointed a Justice of the Peace.

The resignation of Dr. John Joseph Egan as Government Medical Officer at Warwick, Queensland, has been accepted.

Dr. Charles Leslie Park, Quarantine Officer in charge of the Isolation Hospital at North Head, Sydney, has been appointed Chief Health Officer of Tasmania. It will be remembered that temporary arrangements had been made after the resignation of Dr. S. A. McClintock. For a time the Quarantine Department lent one of their officers, Dr. D. G. Robertson, to the Tasmanian Government for the purpose of carrying out the work of the Chief Health Officer and of bringing order into the Department. Dr. Park, who now takes charge of the public health, is a man who has proved his value in the Quarantine Service, and whose knowledge of hygiene will prove an asset to the State.

## Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxi.

Brisbane Hospital, Junior Resident Medical Officers.

Department of Trade and Customs, Quarantine Service, Quarantine Officer at Brisbane.

Department of Trade and Customs, Quarantine Service, Quarantine Officer at Sydney.

Herberton Hospital, Surgeon.

## Medical Appointments.

### IMPORTANT NOTICE.

**Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.**

| Branch. | APPOINTMENTS. |
|---|---|
| VICTORIA.<br>(Hon. Sec., Medical Society Hall, East Melbourne.) | Brunswick Medical Institute.<br>Bendigo Medical Institute.<br>Prahran United F.S. Dispensary.<br>Australian Prudential Association Proprietary, Limited.<br>National Provident Association.<br>Life Insurance Company of Australia, Limited.<br>Mutual National Provident Club. |
| QUEENSLAND.<br>(Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.) | Brisbane United F.S. Institute |
| SOUTH AUSTRALIA.<br>(Hon. Sec., 3 North Terrace, Adelaide.) | The F.S. Medical Assoc., Incorp., Adelaide. |
| WESTERN AUSTRALIA.<br>(Hon. Sec., 330 St. George's Terrace, Perth.) | Swan District Medical Officer.<br>All Contract Practice Appointments in Western Australia. |
| NEW SOUTH WALES.<br>(Hon. Sec., 30-34 Elizabeth Street, Sydney.) | Department of Public Instruction—Appointments as Salaried Medical Officers, with duties which include the treatment of school children.<br>Australian Natives' Association.<br>Balmain United F.S. Dispensary.<br>Canterbury United F.S. Dispensary.<br>Leichhardt and Petersham Dispensary.<br>M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney.<br>Marrickville United F.S. Dispensary.<br>N.S.W. Ambulance Association and Transport Brigade.<br>North Sydney United F.S.<br>People's Prudential Benefit Society.<br>Phœnix Mutual Provident Society.<br>F.S. Lodges at Casino.<br>F.S. Lodges at Lithgow.<br>F.S. Lodges at Orange.<br>F.S. Lodges at Parramatta, Penrith, Auburn, and Lidcombe.<br>Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend. |
| NEW ZEALAND: WELLINGTON DIVISION.<br>(Hon. Sec., Wellington.) | F.S. Lodges, Wellington, N.Z. |

## Diary for the Month.

Mar. 27.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Mar. 27.—Western Med. Assoc. (N.S.W.), General—Dubbo.
Mar. 28.—Vic. Branch, B.M.A., Council.
Mar. 29.—N.S.W. Branch, B.M.A., Return of Ballot Papers for Election of Council of Branch.
Mar. 29.—S. Aust. Branch, B.M.A., Branch.
Mar. 30.—N.S.W. Branch, B.M.A., Annual Meeting.
Apr. 3.—N.S.W. Branch, B.M.A., Council (Election of Officers and appointment of Standing Committees).
Apr. 4.—Vic. Branch, B.M.A., Branch.
Apr. 6.—Q. Branch, B.M.A., Branch.
Apr. 10.—N.S.W. Branch, B.M.A., Council (Quarterly).
Apr. 10.—Tas. Branch, B.M.A., Council and Branch.
Apr. 12.—Vic. Branch, B.M.A., Council.
Apr. 13.—N.S.W. Branch, B.M.A., Clinical.
Apr. 14.—S. Aust. Branch, B.M.A., Council.
Apr. 17.—N.S.W. Branch, B.M.A., Executive and Finance Committee; Ethics Committee.
Apr. 18.—W. Aust. Branch, B.M.A., General.
Apr. 18.—North Eastern Med. Assoc. (N.S.W.), Annual.
Apr. 19.—City Med. Assoc. (N.S.W.).
Apr. 20.—Q. Branch, B.M.A., Council.

### EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

*The Medical Journal of Australia*. All communications should be addressed to "The Editor," B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.